Western Refining
GALLUP

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April 17, 2012

Carl Chavez, Environmental Engineer
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505

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

RE: 2012 Annual Ground Water Monitoring Report and AP-111.
Western Refining Company, Southwest Inc. - Gallup Refinery
EPA ID # NMD000333211

Dear Mr. Chavez and Mr. Kieling:

Western Refining Southwest, Gallup Refinery is pleased to submit the Annual Ground Water Monitoring Report for 2012. This report is being submitted to comply with the existing requirements under the old Discharge Permit 32 which is now listed as case number AP-111.

The new Waste Water Treatment Plant (WWTP) was put into service in the second quarter of 2012 and will affect the sampling requirements for the influents, effluents at the aeration lagoons, and pond 1 under the old Discharge Permit 32. The waste water is now going to our new waste water treatment plant and into a new pond STP-1. Western is currently sampling the new WWTP under the start up requirements stated in NMED's Approval with Modifications Process Design Report for the Waste Water Treatment Plant, Dated May 24, 2010, until further notice.

If you have any questions, please do not hesitate to contact me.

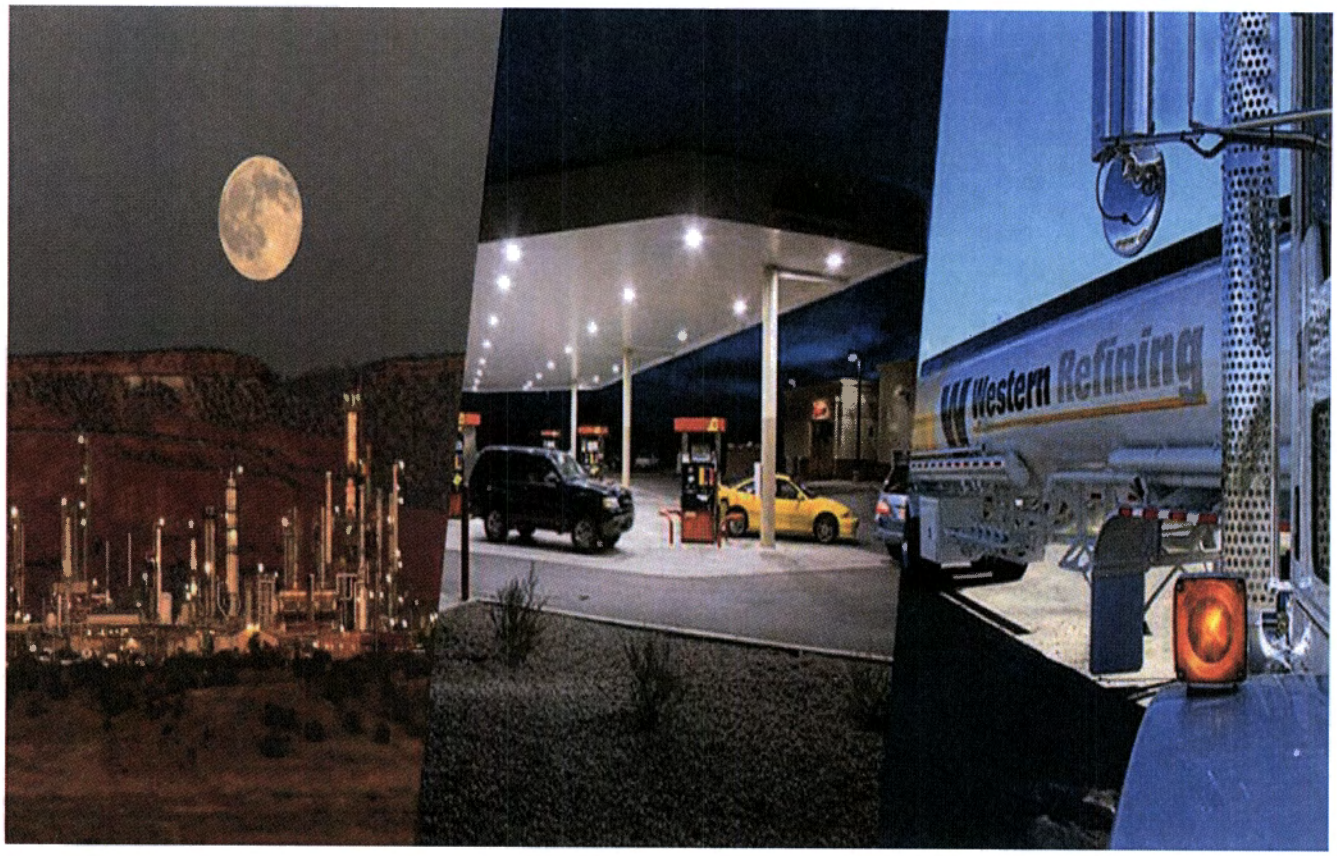
Sincerely,

Ed Riege, Environmental Manager
(505) 722-0217
ed.riege@wnr.com

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

BINDER 1

Annual Ground Water Monitoring Report: Gallup Refinery – 2012



Western Refining

Gallup, New Mexico

April 17, 2012

CERTIFICATION

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

Ed Riege, MPH
Environmental Manager

Prepared by:

Cheryl Johnson
Environmental Specialist

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

SECTION 1 INTRODUCTION 6

1.1 FACILITY OWNERSHIP, OPERATION AND LOCATION 6

1.2 BACKGROUND INFORMATION 7

1.3 SITE CHARACTERISTICS 11

SECTION 2 SCOPE OF ACTIVITIES 2012 13

2.1 MONITORING AND SAMPLING PROGRAM 13

2.2 SAMPLING METHODS AND PROCEDURES 14

2.3 COLLECTION AND MANAGEMENT OF INVESTIGATION DERIVED WASTE 17

2.4 COLLECTION OF SURFACE WATER SAMPLES 17

2.5 ANALYTICAL METHODS 18

2.6 PERIMETER SEARCH 18

2.7 REMEDIATION ACTIVITIES 18

SECTION 3 GROUND WATER ELEVATION DATA 20

SECTION 4 REGULATORY CRITERIA 22

SECTION 5 GROUND WATER ELEVATIONS 23

5.1 POTENTIOMETRIC MAP 23

SECTION 6 GROUND WATER MONITORING RESULTS 24

6.1 MONITORING WELLS THAT HAVE CONSTITUENT LEVELS ABOVE STANDARDS 25

6.2 WELLS WITH CONSTITUENT LEVELS BELOW STANDARDS 43

6.3 EVAPORATION PONDS, INFLUENTS, EFFLUENTS, BOILER WATER TO EP-2 AND LEAK DETECTION UNITS – CONSTITUENT LEVELS. 50

6.4 OCD GROUNDWATER DISCHARGE PERMIT GW-032 59

SECTION 7 CONCLUSIONS AND RECOMMENDATIONS 61

7.1 EAST SIDE GROUND WATER 61

7.2 WEST SIDE MONITORING 62

7.3 ADDITIONAL MONITORING 64

7.4 RECOMMENDATIONS 65
SECTION 8 DATA TABLES 66
SECTION 9 WELL DATA SUMMARY TABLE 201
SECTION 10 MONITORING SCHEDULE 68
SECTION11 FIGURES 211
SECTION 12 GRAPHS 226

LIST OF FIGURES – SECTION 11

Figure 1	Regional Map
Figure 2	Topographic Map
Figure 3	Aerial Photograph
Figure 4	Regional Scale
Figure 5	Flow Lines
Figure 6	Facilities and Wells
Figure 7	Typical South-North Geologic Profile (E. Plant)
Figure 8	S-N Section. Westerly Plant Area
Figure 9	Sonsela Water Elevation Map
Figure 10	Chinle Gp/Alluvium Interface Water Elevations
Figure 11	Ground Water Elevations vs. Time
Figure 12	Alluvial/Fluvial Upper Sand Water Elevations
Figure 13	Product Thickness Map
Figure 14	Typical West-East Geologic Profile

LIST OF GRAPHS – SECTION 12

Graph 1	GWM-1 Benzene Levels (2006-2012)
Graph 2	GWM-1 Ethylbenzene Levels (2008-2012)
Graph 3	GWM-1 MTBE Levels (2006- 2012)
Graph 4	GWM-1 Fluoride (2006-2012)
Graph 5	GWM-1 Chloride Levels (2006-2012)
Graph 6	GWM-1 Arsenic Levels (2006-2012)
Graph 7	NAPIS-2 Benzene Levels (2008-2012)
Graph 8	NAPIS-2 MTBE Levels (2008-2012)
Graph 9	OW-14 – Benzene Levels (2006-2012)
Graph 10	OW-14 – Ethyl benzene Levels (2006-2012)
Graph 11	OW-14 – MTBE Levels (2006-2012)
Graph 12	OW-29 – MTBE Levels (2008-2012)
Graph 13	OW-30 - MTBE Levels (2006-2012)

APPENDICES

APPENDIX A SEPARATE PHASE HYDROCARBONS ..... BINDER 1
APPENDIX B APPLICABLE STANDARDS ..... BINDER 1
APPENDIX C WELL AND FIELD LOGS ..... BINDER 1
APPENDIX D SUMMARY OF WASTE WATER MONTHLY FLOW RATE ..... BINDER 1
APPENDIX E NMED APPROVAL WITH MODIFICATIONS 9/24/12 ..... BINDER 1
APPENDIX F NEW WELL – OAPIS-1 ..... BINDER 1
APPENDIX G SUMMARY OF EPA/NMED/RCRA ACTIVITY ..... BINDER 1
APPENDIX H SUMMARY OF ALL LEAKS, SPILLS AND RELEASES ..... BINDER 1
APPENDIX I PERIMETER INSPECTIONS ..... BINDER 1
APPENDIX J TEMPORARY LAND FARM ANALYTICAL RESULTS ..... BINDER 1
APPENDIX K HALL LABORATORY ANALYTICAL DATA ..... BINDER 2

LIST OF ACRONYMS

AC	Alternating Current
AL	Aeration Lagoon
API	American Petroleum Institute
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethyl benzene, Xylene
BW	Boundary Well
COC	Chain of Custody
COD	Chemical Oxygen Demand
DC	Direct Current
DGF	Dissolved Gas Flotation
DO	Dissolved Oxygen
DRO	Diesel Range Organics
DTB	Depth to Bottom
DTP	Depth to Product
DTW	Depth to Water
EP	Evaporation Pond
EPA	Environmental Protection Agency
FT	Foot/Feet
FWGWMP	Facility Wide Ground Water Monitoring Plan
GPM	Gallons per minute
GRO	Gasoline Range Organics
GWM	Ground Water Monitoring Well
HP	Horse Power
HWB	Hazardous Waste Bureau

LIST OF ACRONYMS – CONTINUED

IDW	Investigation Derived Waste
ISE	Ion Selective Electrode
LDU	Leak Detection Unit
LTU	Land Treatment Unit
MCL	Maximum Contaminant Level
MPPE	Macro Porous Polymer Extraction
MRO	Motor Oil Range Organics
MTBE	Methyl Tert Butyl Ether
mg/L	Milligrams/liter
mV	Millivolts
MW	Monitoring Well
NAIC	North American Industry Classification System
NAPIS	New American Petroleum Institute Separator
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NOD	Notice of Disapproval
NPDES	National Pollutant Discharge Elimination System
OBSM	Oil Bearing Secondary Material
OCD	Oil Conservation Division
OW	Observation Well
ORP	Oxidation Reduction Potential
PAH	Polycyclic Aromatic Hydrocarbon
PSTB	Petroleum Storage Tank Bureau
PW	Process Well

LIST OF ACRONYMS – CONTINUED

RCRA	Resource Conservation and Recovery Act
RSL	Regional Screening Level
RW	Recovery Well
SMW	Shallow Monitoring Well
SPH	Separate Phase Hydrocarbon
STP	Sanitary Treatment Pond
SVOC	Semi-volatile Organic Compound
SWMU	Solid Waste Management Unit
SWPPP	Storm Water Pollution and Prevention Plan
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbon
µm	Micrometer
UPS	United Parcel Service
VOC	Volatile Organic Compounds
WQCC	Water Quality Control Commission
WWTP	Waste Water Treatment Plant
YTD	Year to Date

EXECUTIVE SUMMARY

The Annual Ground Water Monitoring Report for 2012 (Report) incorporates all of the field monitoring, sampling and inspection of all active wells located on the facility. Analytical data and field notes are incorporated into this report to show any changes or discoveries of various constituents found in the ground water collected for sampling. On February 15, 2012, Ground Water Discharge Permit GW-032 was rescinded by the Oil Conservation Division (OCD) of New Mexico (NM). We are however required to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (Remediation) under case number AP-111 with remediation activities already in place under Ground Water Discharge Permit GW-032. Monitoring and field work activities conducted for 2012 followed the guidelines of the approved 2010 Facility Wide Ground Water Monitoring Plan (FWGWMP) (approved with modifications on August 25, 2010).

GROUND WATER MONITORING

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

EAST SIDE GROUND WATER

Ground water monitoring activities on the East side have shown the presence of methyl tert-butyl ether (MTBE) in four observation wells (OW) (OW-13, OW-14, OW-29, OW-30) located on the

northeast corner of the active refinery perimeter (but not the refinery property as a whole). In OW-14, OW-29, and OW-30, three organic constituents (benzene, ethyl benzene and MTBE) were detected in the ground water samples at concentration levels above the current screening levels.

In wells (OW-50 and OW-52) which are down-gradient of OW-30 and OW-29, ground water samples for 2012 detected New Mexico Water Quality Control Commission (WQCC) metals (iron and arsenic) at levels above the current screening levels for 2012. These wells were installed in October 2009 per New Mexico Environmental Department (NMED) requirement dated May 28, 2009 to "determine if contamination has migrated north, northwest of the refinery and potentially offsite" from up gradient wells OW-13 and OW-29.

Within the perimeter of the active refinery in this north-east section, there are four shallow recovery wells (RW-1, RW-2, RW-5, and RW-6) from which separate-phase hydrocarbons (SPH) have been recovered. Recovery through hand bailing continues on a quarterly basis in RW-5 and RW-6 and a portable drop in submersible pump is used in RW-1. The volume of SPH has continued to drop substantially from year to year in RW-1, RW-5 and RW-6. In 2012 only Recovery Well (RW-1) had a measureable hydrocarbon level. No measureable hydrocarbon levels were detected in RW-2, RW-5, and RW-6.

There are a total of three production/process wells (PW) located on the refinery property which are operated to provide the refinery's process water, drinking water to the refinery and company housing and also to the Pilot Travel Center. PW-3 is located on the east side at a depth of 1000 feet. In one sampling event in 2008, two organic constituents were detected in PW-3 (1-Methylaphthalene and phenol) at concentration levels above the current detectable concentration standards. Due to the detection of these two organic constituents, PW-3 was placed on an annual sampling schedule as directed per NMED's Comment 12 of the May 16, 2011 Notice Of Disapproval (NOD) (May 2011 NOD) for the Annual Ground Water Monitoring Report: Gallup Refinery 2009. Annual sampling results since 2009 have indicated no detectable organic constituents in this well. PW-3 continues to be sampled on an annual basis.

WEST SIDE GROUND WATER

The West side consists of ground water monitoring (GWM) wells located around the aeration lagoons (AL), the new American Petroleum Institute separator (NAPIS), and alongside a series of large evaporation ponds (EP).

At the aeration basin, ground water monitoring well GWM-1, three organic constituents (benzene, ethyl benzene, and 1-Methylnaphthalene) were detected in the ground water samples at concentration levels above the current applicable standards. Fluoride, chloride, diesel range organics (DRO) and four metals (arsenic, barium, iron and manganese) were also detected at concentration levels above the applicable standards. GWM-2 and GWM-3 also had measureable water levels in all four quarters in 2012. Both of these wells were dry wells upon installation in 2005 and beginning in 2010 continued to have a measureable water level. Ground water sample results have indicated non-detectable and/or concentration levels below the applicable standards. Chloride, fluoride, nitrate, sulfate and DRO also had detectable concentration levels for 2012. Metals detected include arsenic, iron, manganese and also uranium at levels above the applicable standards.

In July 2012, a new well was installed OAPIS-1 at the aeration basin on the northwest side of Aeration Lagoon 1 (AL-1). The development of this well was a result of a site investigation conducted by Enviro-Drill, Inc., and RPS on ground water and soils surrounding the aeration basin on Solid Waste Management Units (SWMU), SWMU No. 1 Aeration Basin and SWMU No. 14 Old API Separator. The Investigation Work Plan was implemented to determine if there has been a release to the environment and to delineate any such releases at the aeration basin. Information collected from this site investigation will also be used to help determine the source of ground water that has been observed in monitoring wells GWM-2 and GWM-3 since 2010.

Located down gradient of the NAPIS on the west side, are three wells (NAPIS-2, NAPIS-3, KA-3). Of the three wells, NAPIS-2 and KA-3 had detectable concentration levels of organic constituents (benzene, ethyl benzene, MTBE, 1-Methylnaphthalene, naphthalene, and phenol). Five metal constituents were also detected in this well, (arsenic, barium, iron, manganese and uranium. On the east side of the NAPIS, NAPIS-1 ground water samples had non-detectable levels of organic constituents for 2012. Fluoride and metals (arsenic, iron, manganese and uranium) were at detectable concentration levels.

The new waste water treatment plant (WWTP) and the new holding pond Sanitary Treatment Pond (STP-1) were completed and put in service in May of 2012. The start up of the new WWTP resulted in the intermittent use of the benzene strippers and also the sampling locations at the outfalls at the aeration basin. In November of 2012, the benzene strippers were taken off line permanently and removal of the strippers for demolition was completed in January 2013. Waste water effluent is now routed to the WWTP via the NAPIS and the only effluent going into the aeration basin is the Pilot Effluent.

Located on the West side are a series of boundary (BW), observation (OW), monitoring (MW), process (PW) and shallow monitoring (SMW) wells. Among the wells on the far west side are two deep production/process water wells identified as PW-2 and PW-4 which provide process and drinking water for the refinery, refinery owned houses and also for the Pilot Travel Center. Both of these wells are sampled every three years and sampling results have indicated non-detectable levels of organic constituents.

Also on the west side are SMW-2 and SMW-4 which have shown trace levels of seven organic constituents from 2008 through 2012 (MTBE, acetone, bis (2-ethylhexyl) phthalate, diethyl phthalate, phenol, and benzenethiol was detected at levels below the applicable detection standards. 1,4-Dioxane was detected in SMW-2 in 2008 and has not shown any detection levels since then. Several metal constituents were also detected at concentration levels above the current applicable standards and are listed as follows: Arsenic, chromium, iron, manganese, uranium and also cyanide. SMW-2 has also shown levels of chloride and sulfate above the WQCC standards and fluoride levels were above the applicable standards for SMW-4.). 1,4-Dioxane

There are a total of nine boundary wells located on the northwest end of the refinery property alongside a series of evaporation ponds. Three of the seven wells inspected continue to indicate no water level (BW-1A, BW-1B, and BW-3A). Of the seven, only BW-3B and BW-3C had an organic constituent (bis (2-ethylhexyl) phthalate) detected in BW-3B in 2009 and in BW-3C in 2011. 2012 annual sampling results indicate non-detectable levels of bis (2-ethylhexyl) phthalate in both wells. Several metals were at detectable levels which include arsenic, cadmium, chromium, and iron in all of the boundary wells that were sampled. Fluoride levels were also above the applicable standards in all boundary wells and in BW-2A and BW-3B, phosphorous was at detectable levels.

ADDITIONAL MONITORING AND REPORTING

On February 15, 2012, Ground Water Discharge Permit GW-032 was rescinded by OCD. We are however required to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (Remediation) under case number AP-111with remediation activities already in place. This report includes:

- Monitoring of the aeration lagoons, ponds, and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis.
- Summary of all EPA/NMED/RCRA Activity
- Major Refinery Activities and Events
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections
- Temporary Land Farm Monitoring

With the start up of the new WWTP, and dismantling of the benzene strippers, waste water flow was redirected via the NAPIS to the WWTP and sample locations at the aeration lagoons have changed. Sampling is conducted according to Comment 17 of NMED's "Approval with Modifications, Process Design Report for the Waste water Treatment Plant Work Plan (Alternative Design, Revision A)", dated May 24, 2010.

The evaporation ponds are sampled semi-annually and four organic constituents were detected in 2012 (carbon disulfide, aniline, phenol and 2-Methylphenol). Fluoride and chloride levels were all above the applicable standards in all of the ponds sampled. Figure 2, a topographic map and Figure 3, an aerial photograph, depict the area topography and the general layout of the refinery.

SECTION 1
INTRODUCTION

The 2012 Annual Ground Water Monitoring Report has been prepared to describe monitoring and remediation activities undertaken throughout 2012. Ground water sampling is performed on a quarterly, semi-annual and annual basis and also includes sampling of the evaporation ponds located on the northwest section of the refinery property. The activities completed includes analysis of all active monitoring wells and evaporation ponds and the data generated is used to characterize the nature and extent of impacts to the ground water at the refinery from historical releases and to monitor any levels of constituents that exceed applicable standards.

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

- Scope of activities
- Sampling methods and procedures
- Ground water elevation surveys;
- Regulatory criteria
- Ground water monitoring results
- Conclusions and recommendations.

1.1 FACILITY OWNERSHIP, OPERATION AND LOCATION

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

Owner:	Western Refining 123 West Mills Avenue El Paso, TX 79901	(Parent Corporation)
Operator:	Western Refining Southwest, Inc.	(Postal address)

Route 3, Box 7
Gallup, New Mexico 87301
Western Refining Southwest, Inc. (Physical address)
I-40, Exit 39
Jamestown, New Mexico 87347

The following regulatory identification and permit governs the Gallup Refinery:

- SIC code 2911 (Petroleum Refining) applies to the Gallup Refinery
- U.S. EPA ID Number NMD000333211
- OCD Discharge Permit No. GW-032 was rescinded on February 15, 2012. We are required to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (Remediation) under case number AP-111.

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

1.2 BACKGROUND INFORMATION

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

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

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

- Fluidized Catalytic Cracking Unit (FCCU) dissociates long-chain hydrocarbon molecules into smaller molecules, and essentially converts heavier oils into naphtha and lighter oils.
- Alkylation Unit combines specific types of hydrocarbon molecules into a high octane gasoline blending component.
- Reforming Unit breaks up and reforms low octane naphtha molecules to form high octane naphtha.
- Hydro Treating Unit removes undesirable sulfur and nitrogen compounds from intermediate feed stocks, and also saturates the feed stocks with hydrogen to make diesel fuel.
- Additional Treater Units also remove impurities from various intermediate and blending feed stocks to produce finished products that comply with sales specifications.
- Isomerization Unit converts low octane hydrocarbon molecules into high octane molecules.
- A set of Acid Gas Treating and Sulfur Recovery Units convert and recover various sulfur compounds from other processing units in order to produce either ammonium thiosulfate or a solid elemental sulfur byproduct.

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

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

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

Several tank truck loading racks are used at the refinery to load out finished products and also may receive crude oil, other feed stocks, additives, and chemicals. Gasoline and diesel is delivered to the Pilot Travel Center via tanker truck. An underground diesel pipeline exists between the refinery and the Pilot Travel Center. As a result of an off-refinery release in 2011,

the pipeline was purged of product, filled with nitrogen and temporarily taken out of service. Western is working with the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) to place this line back into service.

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

The process waste water system is a network of curbing, paving, catch basins, and underground piping that collects waste water effluent from various processing areas within the refinery. The waste water effluent flows into T-27, T-28 and into T-35, which works in parallel to T-27 and T-28 and into the NAPIS which provides the first stage oil-water separation where the removal of free oil is separated from waste water by gravity. The clarified water is routed to the new waste water treatment plant (WWTP) Dissolved Gas Flotation (DGF) system which provides the second stage oil-water separation process. The DGF process involves the pressurization of waste water in the presence of air or nitrogen, creating a super-saturated solution called coagules that are carried to the surface. The float is removed to disposal by mechanical float scrapers and the effluent is recycled back to the flotation chamber. The skimmed float is sent to the DGF float management system, "float tanks". Oily solids collected in the float tanks is recycled through the refining process (on-site) or handled as a K048 listed hazardous waste for proper disposal.

The clarified effluent from the DGF system then flows to the Macro Porous Polymer Extraction (MPPE) system. The MPPE system removes dissolved and dispersed hydrocarbons from the waste water which includes aromatics, polyaromatic hydrocarbons (PAH) through a liquid-liquid extraction process where waste water is passed through a column packed with MPPE particles (porous polymer beads) that contain the extraction liquid suitable for removal of aromatic hydrocarbons and PAHs. The waste water that passes through the MPPE column discharges into holding pond STP-1. The hydrocarbon-water mixture will be recycled and sent back to the refinery for reprocessing.

STP-1 has two bays, north and south and each bay is equipped with five aerators. The treated waste water is mixed with air in order to oxidize any remaining organic constituents and increase the dissolved oxygen concentration available in the water for growth of bacteria and other

microbial organisms. The microbes degrade most of the hydrocarbons into carbon dioxide and water. Five 15-hp mechanical aerators provide aeration in each bay (North and South) in STP-1. Effluent from STP-1 then flows onward into evaporation pond 2 (EP-2) and gravitated to the rest of the ponds.

The new WWTP was completed and put online in May of 2012 which resulted in the decommissioning of Benzene Strippers 1, 2 and 3, and the Aeration Lagoons 1 and 2 (AL-1 and AL-2). In November of 2012, the benzene strippers were taken off line permanently and removal of the strippers for demolition was completed in January of 2013.

At the evaporation ponds, waste water is converted into vapor via solar and mechanical wind-effect evaporation. No waste water is discharged from the refinery to surface waters of the state. All treated waste water is routed to several evaporation ponds which have large surface areas that are designed to efficiently evaporate water by sunlight and exposure to the changing ambient temperatures. The refinery does have a National Pollutant Discharge Elimination System (NPDES) Permit for storm water discharge.

The storm water system is a network of valves, gates, berms, embankments, culverts, trenches, ditches, natural arroyos, and retention ponds that collect, convey, control, treat, and release storm water that falls within or passes through refinery property. Storm water that falls within the processing areas is considered equivalent to process waste water and is sent to tanks T-27, T-28 and T-35 before it reaches the NAPIS, WWTP, STP-1 and into EP-2 where flow is gravitated to the rest of the ponds.

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

1.3 SITE CHARACTERISTICS

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

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

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

The 810 acre refinery property site is located on a layered geologic formation. Surface soils generally consist of fluvial and alluvial deposits; primarily clay and silt with minor inter-bedded sand layers. Below this surface layer is the Chinle Formation, which consists of very low permeability clay stones and siltstones that comprise the shale of this formation. As such, the Chinle Formation effectively serves as an aquiclude. Inter-bedded within the Chinle Formation is the Sonsela Sandstone bed, which represents the uppermost potential aquifer in the region. The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high

point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquiclude, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist through much of the central and western portions of the refinery property.

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

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

SECTION 2
SCOPE OF ACTIVITIES 2012

The 2012 quarterly and annual ground water sampling was conducted by Trihydro Corporation and the semi-annual pond sampling was conducted by Western. The third quarter ground water sampling was combined with the annual sampling event per approval from NMED and OCD and conducted the week of August 20, 2012. The following is a list of monitoring and inspections completed for 2012.

- Separate Phase Hydrocarbon Recovery Logs – Appendix A
- Field Inspection logs – Appendix C
- Treatment System Monitoring – Monthly Flow Rate – Appendix D
- New Well Installation OAPIS-1 – Appendix F
- Spill Reporting – Appendix H
- Perimeter Inspections - Appendix I
- Temporary Land Farm Semi-Annual Sampling – Appendix J
- Laboratory Analytical Data – Section 8
- Well Data Summary Table (Elevations) – Section 9
- Quarterly, semi-annual, annual inspections summary – Section 10

2.1 MONITORING AND SAMPLING PROGRAM

The primary objective of ground water monitoring is to analyze ground water samples collected and use data to assess ground water quality at and near the refinery. Ground water elevation data is collected to evaluate ground water flow conditions. The ground water monitoring program for the refinery consists of sample collection and analysis from a series of monitoring, recovery, boundary, process and shallow monitoring wells, including evaporation pond locations and influents/effluents at the aeration basin.

The monitoring network is divided into two investigation areas (East Side and West Side). The sampling frequency, analyses and target analytes vary for each investigation area and well/outfall/evaporation pond location. The combined data from these investigation areas is used

to assess ground water quality beneath and immediately down-gradient of the refinery, and also evaluate local ground water flow conditions. Samples are collected annually from monitoring wells that have measurable separate phase hydrocarbon (SPH) levels. For wells that are purged dry, samples are collected if recharge volume is sufficient for sample collection within 24 hours. Wells not sampled due to insufficient recharge will be documented in the field log.

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

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

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

Field duplicates and trip blanks may be obtained for quality assurance during sampling activities at a frequency of one for each shipping event involving twenty or more samples.

2.2 SAMPLING METHODS AND PROCEDURES

Each monitoring well is gauged for depth to water (DTW) and or depth to product (DTP) measurement to determine the amount of water to purge. A minimum of two well volumes are purged from each well prior to sampling. If water level is at a minimum or the well has low recharge rate, then the well is allowed to recharge within 24 hours before sample is collected. For

wells that are not supplied with dedicated pumps, a portable pump is lowered slowly into the well to minimize disturbance to a depth of the midpoint of the screened interval of the well. The pump controller is started at a slow rate and gradually increased until water is discharged. Field water quality measurements must stabilize for a minimum of three consecutive readings taken at 2 to 5 minute intervals and are within the following limits before purging will be discontinued and sampling may begin: Dissolved Oxygen (DO) (10%), Specific Conductance (3%), Temperature (3%), pH (+/- 10 mV).

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

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

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

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

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

- Protective eye wear (safety glasses, goggles and or face shield)
- Neoprene, nitrile, or other protective gloves are worn when collecting samples. New disposable gloves are used to collect sample at each sample point.
- All samples collected for chemical analysis are transferred into clean sample containers supplied by the analytical laboratory. The sample container is clearly marked and labeled.
- Ground water samples obtained for dissolved metals analysis are filtered through a 0.45 μm (micrometer) mesh size disposable filter.

- Samples are labeled, sealed, placed in cooler with ice until they are shipped via United Parcel Service (UPS) Red, Federal Express Overnight or personally delivered to the analytical laboratory.
- Standard COC procedures are followed for all samples collected. The COC form and sample request form are shipped inside the sealed storage container to be delivered to the laboratory, signed and dated.
- Field duplicates and trip blanks may be obtained for quality assurance during sampling activities. Trip blanks will accompany laboratory sample bottles and shipping and storage containers intended for volatile organic compound (VOC) analyses. Trip blanks will consist of a sample of analyte free de-ionized water placed in an appropriate sample container. Trip blanks will be analyzed at a frequency of one for each shipping event involving twenty or more samples.

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

2.2.1 EQUIPMENT

- A submersible bladder pump 2 inch, 115 volt AC to DC converter, Grundfos Redi-flo2 constructed of stainless steel with check valve and 1/2 in. Teflon tubing, adjustable rate controller powered by a gas generator is used to purge ground water from monitoring wells. Equipment is located downwind and at least 20 feet from the well so that exhaust fumes do not cross contaminate the samples.
- Water level instrument used is a Heron Instrument 100 feet DipperT electric water depth tape complying with US GGG-T-106E, EEC, Class II. This instrument measures water level, indication is a steady audible tone and hydrocarbon indication is an erratic audible tone.
- Parameter Instrument – YSI Model 556 MPS Multi Probe System which simultaneously measures DO, conductivity, temperature, and optional pH and ORP (Oxidation Reduction Potential). As a backup, we also have an IQ Scientific Instrument, Model IQ180GLP

which measures pH, DO, TDS (Total Dissolved Solids), Conductivity, salinity, ISE (Ion Selective Electrode), mV (Millivolts) and temperature.

- Disposable Bailers – Polyethylene bailer (1.5 inches X 36 inches) overall length (OAL); capacity approximately 1 liter). Individually sealed packaging, single check valve bailer with slide in angle cut nozzle for sample removal. A new bailer is used for each well that requires hand bailing for purging and sample retrieval.
- Field equipment parameter instruments are calibrated to known standards, in accordance with the manufacturers' recommended schedules and procedures. Calibration checks are conducted before use and the instruments recalibrated if necessary. Calibration of equipment is noted in the daily field logs.
- If field equipment becomes inoperable, a properly calibrated replacement instrument is used in the interim. Instrumentation used during a sampling event is recorded in the daily field logs.

2.3 COLLECTION AND MANAGEMENT OF INVESTIGATION DERIVED WASTE

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

2.4 COLLECTION OF SURFACE WATER SAMPLES

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

2.5 ANALYTICAL METHODS

Ground water and surface water samples collected during the monitoring events are analyzed for the constituents listed in Table 1, Section 9.0. In addition, the WQCC standard is used for total and dissolved metals analysis.

2.6 PERIMETER SEARCH

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

2.7 REMEDIATION ACTIVITIES

SPH has been found in wells RW-1, RW-5 and RW-6. SPH is recovered from these wells using a submersible bladder pump, or hand-bailing using a disposable polyethylene bailer. Table 2A through 2D in Appendix A summarizes measurements, volume of product and water purged and also provides year to date (YTD) product purged from each well. RW-2 is also listed as a recovery well but to date no visible hydrocarbon layer has been observed or measured in this well during quarterly inspections. In 2012 product recovered is estimated to be 0.97 gallons from RW-1. RW-5 has shown a decline in SPH levels beginning in the second quarter of 2009 through 2012, and no indication of a SPH thickness level during quarterly inspections has been observed. Purging continues in RW-5 despite the lack of a measureable layer of product in the purged water. RW-6 continues to show a decline in SPH levels from a level of 0.16 feet in the first quarter of 2009 to no measureable product level in 2012. Although there was no measureable product level in RW-6 for 2012, purging of water continued as there was a visible sheen observed in the water purged and an odor detected.

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

SECTION 3
GROUND WATER ELEVATION DATA

Ground water elevation data is collected from the wells listed in Table 1, Section 10.0. Summary of field measurements (DTW, DTP) taken during the quarterly, semi-annual and annual inspections is listed in Section 9. Ground water levels and SPH thickness measurements (from the RW series of wells) are collected quarterly to monitor ground water elevation and product thickness fluctuations over time. Maps were generated in March 2013 using elevation data collected from the survey conducted by DePauli Engineering on June 6, 2011 and from field inspection logs. Resurvey of active wells was required by NMED on June 6, 2011 due to elevation discrepancies found on the 2009 Well Data Summary Table. Western received the "Approval with Modifications – Requirement to Resurvey Groundwater Monitoring Wells and Recovery Wells", from NMED on September 24, 2012, a copy of which is included in this report as Appendix E.

Field notes and measurement data is recorded in field logs from each well for 2012 and is attached as Appendix C. The depth to ground water and SPH thickness levels are measured to the nearest 0.01 ft. The depth to ground water and SPH thickness are recorded relative to the surveyed well casing rim or other surveyed datum. A corrected water table elevation is provided in wells containing SPH by adding 0.8 times the measured SPH thickness to the measured water table elevation (Section 9).

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

Ground water and SPH levels are measured in all wells within 48 hours of the start of ground water sampling activities. All manual extraction of SPH and water from recovery wells,

observation wells, and collection wells is discontinued for 48 hours prior to the measurement of water and SPH levels.

Figure 6 (Section 11) shows the locations of all the active wells

SECTION 4
REGULATORY CRITERIA

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

- New Mexico 20NMAC 20.6.2.3103 (WQCC). Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
- EPA 40 CFR 141.62. National Primary Drinking Water Regulations (Updated June 8, 2012) (EPA MCL).
- EPA Regional Screening Levels set for Residential Risk-Based Screening Levels (EPA RSL) for Tap Water (Ross) (April 2012).
- NMED Table 6.2 (unknown oil). Total petroleum hydrocarbon (TPH) screening guidelines for Potable Ground water (GW-1), (June 2012).
- NMED Tap Water Screening Levels (April 2012)

SECTION 5
GROUND WATER ELEVATIONS

5.1 POTENTIOMETRIC MAP

Figure 7 (Section 11) presents a south-north geologic profile (East Side) showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located. Figure 8 (Section 11) presents a south-north section on the West Side showing contours of monitoring wells with reference to stratigraphic locations in which the water bearing zones are located and Figure 14 (Section 11) represents geologic profile for West-East locations. Maps were generated in March 2012 using elevation data from the survey conducted by DePauli Engineering on June 7, 2011 and field inspection logs for 2012.

SECTION 6
GROUND WATER MONITORING RESULTS

Section 8 contains the Ground Water Analytical Data Tables for 2012. Only constituents above levels of detection are generally described. Bold and highlighted values indicate that a constituent exceeds one or more of the standards listed. Appendix K (Binder 2) contains the laboratory analytical data reports. The following is a list of reporting requirements included in this report.

- Monitoring of the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly, semi-annual and annual basis. (Section 8)
- Summary of Monthly Waste Water Flow Rate (Appendix D)
- New Well – OAPIS-1 (Appendix F)
- Major Refinery Activities and Events (Summary EPA/NMED/RCRA Activity) (Appendix G)
- Summary of All Leaks, Spills and Releases (Appendix H)
- Perimeter Inspections (Appendix I)
- Temporary Land Farm Analytical Results (Appendix J)

6.1 MONITORING WELLS THAT HAVE CONSTITUENT LEVELS ABOVE STANDARDS.

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

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

- BW-1C: 8/24/12
- BW-2A: 8/24/12
- BW-2B: 8/24/12
- BW-2C: 8/24/12
- BW-3B: 8/23/12
- BW-3C: 8/23/12

Analytical results indicate concentration levels of fluoride were above the current WQCC and Environmental Protection Agency Regional Screening Level (EPA RSL) standards of 1.6 mg/L and 0.93 mg/L in all of the above listed BW wells for the annual sampling conducted for 2012. In BW-3B, concentration level of phosphorous (0.82 mg/L) was detected above the EPA RSL standard of 3.1E-04 mg/L.

Total metals detected above the WQCC and/or EPA RSL standards included the following metals; chromium at 0.22 mg/L in BW-1C; arsenic at 7.2E-03 mg/L in BW-2A; cadmium at 0.013 mg/L and iron at 2.9 mg/L in BW-2C; arsenic at 4.4E-03 mg/L, iron at 3.6 mg/L and manganese at 0.22 mg/L in BW-3B. Dissolved metals detected above the applicable standards include arsenic at 7.2E-03 mg/L in BW-2A; 1.1E-03 mg/L of arsenic in BW-2B; iron at 3.0 mg/L in BW-2C; arsenic at 4.9E-03 mg/L in BW-3B and 2.2E-03 mg/L in BW-3C.

6.1.2 GWM-1

Ground water samples are collected on a quarterly basis. Prior to 2010, this well was on an annual sampling schedule. Third quarter sampling was combined with the annual sampling event

per approval from NMED and OCD. Ground water samples were analyzed for the following parameters: Major cations, anions, 8260B plus MTBE, 8015B and WQCC metals. Quarterly water level measurement inspections and sampling were completed on the following dates:

- GWM-1: 3/20/12, 6/12/12, 8/21/12, 11/28/12

Benzene, toluene, ethyl benzene and total xylene (BTEX) constituents analyzed in this well are as follows: Benzene first quarter results indicated detectable concentration levels above the applicable standards at 5.7E-03 mg/L, second quarter results at 5.3E-03 mg/L, and third quarter results at 7.8E-03 mg/L. See Graph 1 in Section 12 for 2006 through 2012 benzene trend.

Ethyl benzene analytical results are as follows for 2012: First quarter 1.9E-03 mg/L, second quarter 2.5E-03 mg/L and third quarter results of 3.5E-03 mg/L. See Graph 2 in Section 12 for 2008 through 2012 ethyl benzene trend.

MTBE analytical results are as follows for 2012: First quarter 0.054 mg/L, second quarter 0.04 mg/L, third quarter 0.044 mg/L and fourth quarter at 0.052 mg/L which are at concentrations levels below the NMED Tap Water standard of 0.125 mg/L. See Graph 3 for MTBE trend in Section 12 for 2006 through 2012.

Fluoride and chloride levels were also above the applicable standards for 2012 in all four quarters. Fluoride ranged from first quarter of 3.6 mg/L to 3.2 mg/L in the fourth quarter. Chloride concentration levels were also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 1200 mg/L to fourth quarter of 1000 mg/L. See Graphs 4 and 5 in Section 12 for 2006 through 2012 fluoride and chloride trend.

Diesel range organics (DRO) concentration levels were also above the NMED Table 6.2 TPH Screening Guidelines for Potable Water (GW-1) (June 2012) for the first (3.5 mg/L) and fourth quarter (1.6 mg/L) of 2012.

Total metals analysis indicated detection levels above the applicable standards for the following constituents for 2012: Arsenic, iron and manganese. Barium was detected at concentration levels above the applicable standards in the first and third quarter at 1.1 mg/L. Dissolved metals analytical results indicated detectable concentration levels in all four quarters in 2012 for the following metals: arsenic, iron and manganese. Barium was detected in the third and fourth quarter at 1.1 mg/L. See Graph 6 for trend of arsenic levels from 2006 through 2012.

Volatile organic compounds (VOC) detected in 2012 that were above the applicable standards included the following organic constituents: 1-Methylnaphthalene at 6.3E-03 mg/L in the second quarter and 0.013 mg/L in the third quarter.

6.1.3 GWM-2, GWM-3

GWM-2 and GWM-3 are inspected on a quarterly basis. If either one of these wells indicate a water level during a quarterly inspection, the information is reported to NMED and OCD within 24 hours of discovery. Samples are collected only if there is an adequate water level for retrieval. After samples are collected, well is bailed of remaining water and depth to water is measured to determine remaining water level after purging. The wells were installed in 2005 and have been dry until 2008 when water was detected in the first quarter in GWM-2 with a depth to water measurement of 18.45 feet. NMED and OCD were notified of finding within the 24 hour requirement. Per NMED, well was bailed dry to monitor recharge rate which was minimal after samples were collected. After GWM-2 was purged dry, the well did not recharge and future quarterly inspections verified no presence of water until the second quarter of 2010 when water was detected in GWM-2 with a water thickness level of 1.5 feet. 24 hour notification given and no samples were collected at this time as there was not enough water for sample collection. Inspection of GWM-3 also indicated a water thickness level of 0.88 feet and no samples were collected due to low water level. Water was purged from each well with a disposable bailer of remaining water, gauged and recorded on the field log. Both wells were re-checked on June 4, 2010 and found to be dry. No further action was taken until the next quarterly inspection. Water was detected in the third and fourth quarter of 2010 and notification was given to NMED and OCD within 24 hours of finding. Weekly inspections were done to monitor recharge rate on both wells and ground water samples were collected from both wells in September and October of 2010.

GWM-2 and GWM-3 continue to indicate a water level during quarterly inspections in 2011. 24 hour notification and sampling requirements were followed for 2011. Per NMED's instructions, Gallup Refinery was instructed to take monthly measurements of both wells from February thru June of 2011. Recharge rate remained steady and no significant water level increase was observed in GWM-2 or GWM-3 during this period. Monthly checks were discontinued in July

2011. DTW measurements in GWM-2 fluctuated in the first quarter from 17.48 feet to 15.08 feet. Second quarter DTW measurements remained constant around 14.5 feet and third and fourth quarters remained around 15.7 feet.

In GWM-3 first quarter (2011) DTW measurements fluctuated from a high of 16.99 feet to a low of 14.4 feet in the first quarter. DTW measurements remained constant around 12.5 feet in the second quarter. Third and fourth quarter DTW measurements increased from 16.39 feet to 14.35 feet in the fourth quarter.

2012 quarterly inspections of GWM-2 and GWM-3 continued to indicate the presence of water in all four quarters and 24 hour notification and sampling requirements were followed. GWM-2 water thickness levels varied from first quarter of 5.23 feet to fourth quarter of 4.98 feet. Water thickness level in GWM-3 ranged from 4.85 feet in the first quarter to 4.2 feet in the fourth quarter.

Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD and conducted in August 2012. Ground water samples were analyzed for the following analytes: 8021B plus MTBE, GRO/DRO extended and major cations/anions. WQCC metals analysis was a requirement for the annual sampling only. Inspections and sampling were performed on the following dates.

- GWM-2: 3/20/12, 6/12/13, 8/21/12, 11/28/12
- GWM-3: 3/20/12, 6/12/13, 8/21/12, 11/28/12

Fluoride and chloride levels were above the applicable standards for 2012 in all four quarters for both wells. In GWM-2, fluoride ranged from first quarter of 3.6 mg/L to 3.8 mg/L in the fourth quarter. Chloride concentration levels were also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 1500 mg/L to fourth quarter of 1000 mg/L. Sulfate concentration level was also above the WQCC standard of 600 mg/L in all four quarters ranging from 1300 mg/L first quarter to 1500 mg/L in the fourth quarter. Nitrate concentration level was also above the WQCC standards for all four quarters ranging from 38 mg/L to 15 mg/L in the fourth quarter. Diesel range organics (DRO) was only detected in the first quarter at 2.4 mg/L at a concentration level above the NMED Table 6.2 TPH Screening Guidelines for Potable Water (GW-1) (June 2012).

Total and dissolved metals analysis was run for the first time as a sampling requirement for the annual sampling event completed in August 2012. GWM-2 sample analysis indicated detection levels above the applicable standards for the following constituents; arsenic, manganese and uranium.

GWM-3, fluoride ranged from first quarter of 4.9 mg/L to 5.6 mg/L in the fourth quarter. Chloride concentration level was also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 1300 mg/L to fourth quarter of 1200 mg/L. Sulfate concentration level was also above the WQCC standard of 600.0 mg/L in all four quarters ranging from 1600 mg/L first quarter to 1500 mg/L in the fourth quarter. Nitrate concentration level was also above the WQCC standards in the first quarter at 18 mg/L to third quarter results of 43 mg/L.

Diesel range organics (DRO) concentration level was also above the NMED Table 6.2 TPH Screening Guidelines for Potable Water (GW-1) (June 2012) for the first quarter at 2.7 mg/L.

Total and dissolved metals analysis was run for the first time as a sampling requirement for the annual sampling event completed in August 2012. GWM-3 sample analysis indicated detection levels above the applicable standards for the following constituents; arsenic, iron, lead, manganese and uranium.

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

The monitoring wells are sampled on an annual basis. Ground water samples are analyzed for the following analytes: Major cations/anions, 8260 plus MTBE, WQCC Metals and 8015B. Annual sampling and inspections were completed on the following dates:

- MW-1: 8/24/12
- MW-2: 8/24/12
- MW-4: 8/21/12
- MW-5: 8/23/12

The MW series of wells are also sampled every 10 years per our Resource Conservation Recovery Act (RCRA) Post Closure Permit for the following analytes: General chemistry, Modified Skinner List Metals (total and dissolved) including mercury and cyanide and Modified

Skinner List VOC, SVOC, and total petroleum hydrocarbons (TPH). The next scheduled 10 year sampling event is to occur in year 2019.

Dissolved metals analysis indicated a detectable concentration level above the EPA RSL standard (4.5E-05 mg/L) for arsenic at 1.3E-03 mg/L in MW-1.

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

NAPIS wells are sampled on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: Major cations/anions, 8021B plus MTBE, 8270 plus phenol, 8015B, and WQCC Metals. Method 8270 analysis was missed during the fourth quarter sampling event conducted in November and samples were collected on December 5, 2012. NAPIS Wells were sampled on the following dates:

- NAPIS-1: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12
- NAPIS-2: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12
- NAPIS-3; 3/20/12, 6/12/12, 10/2/12, 11/28/12
- Resampled: 12/5/12
- KA-3: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12

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

In NAPIS-1, BTEX and MTBE constituents were at non-detectable levels from 2008 through 2012. Fluoride was detected at a concentration level above the EPA RSL standard of 0.93 mg/L in the fourth quarter of 2012 at 1.1 mg/L. Chloride, bromide, nitrate, and sulfate concentration levels were all below applicable standards. Total metals analysis indicated concentration levels above the applicable standards for the following constituents: Second quarter , arsenic at 3.1E-03 mg/L; iron at 7.5 mg/L, manganese at 0.36 mg/L and uranium at 0.032 mg/L. In the fourth

quarter, iron at 1.1 mg/L and uranium at 0.03 mg/L. Dissolved metals analysis indicated a detectable level of arsenic in all four quarters of 2012: First quarter = 1.8E-03 mg/L; second quarter = 2.3E-03 mg/L, third quarter = 2.1E-03 mg/L and fourth quarter = 1.9E-03 mg/L. Total metals analysis indicated detectable concentration levels of the following metal constituents below applicable standards: barium, chromium, selenium, and zinc. Dissolved metals analysis indicated the following metal constituents: barium, calcium, iron, magnesium, manganese, selenium, sodium, uranium and zinc at concentration levels below the applicable standards. No organic compounds were detected in NAPIS-1 from 2009 through 2012.

In NAPIS-2, BTEX constituents analyzed with concentration levels above the applicable standards are as follows: Benzene, first quarter = 0.019 mg/L, second quarter = 0.018 mg/L, third quarter = 0.01 mg/L and fourth quarter = 0.016 mg/L. See Graph 7 in Section 12 for 2008 through 2012 benzene trend. Toluene and total xylene analytical results were all at non-detectable levels. MTBE was also detected at concentration levels above the NMED Tap Water standard of 0.125 mg/L in all four quarters of 2012. Results are as follows: First quarter = 0.37 mg/L; Second Quarter = 0.34 mg/L, third quarter = 0.16 mg/L and fourth quarter results were 0.36 mg/L. See Graph 8 in Section 12 for 2008 through 2012 MTBE trend.

Fluoride and chloride levels were also above the applicable standards for 2012 in all four quarters. Fluoride results for second quarter = 1.7 mg/L; third quarter = 1.6 mg/L and fourth quarter = 1.7 mg/L. Chloride concentration levels were also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 330 mg/L to fourth quarter of 370 mg/L. Bromide and sulfates were also detected but at concentration levels below the applicable standards.

DRO was only detected in the first quarter at 4.7 mg/L at a concentration level above the NMED Table 6.2 TPH Screening Guidelines for Potable Water (GW-1) (June 2012). Gasoline Range Organics (GRO) was also detected in the ground water samples collected from 2008 through 2012 ranging from 1.4 mg/L in the first quarter to 0.52 mg/L in the fourth quarter.

Total metals analysis indicated concentration levels above the applicable standards for the following constituents: Arsenic, first quarter = 0.011 mg/L, second quarter = 0.01 mg/L and third quarter = 9.7E-03 mg/L. Barium, first quarter = 2.1 mg/L, second quarter = 1.9 mg/L and third and fourth quarter = 1.7 mg/L. Iron, first quarter = 5.0 mg/L, second quarter 3.8 mg/L, third quarter = 3.1 mg/L and fourth quarter = 1.1 mg/L. Manganese, first quarter = 1.6 mg/L, second

quarter = 1.9 mg/L and third quarter = 1.7 mg/L. Uranium had a detectable concentration level in the fourth quarter at 0.03 mg/L. Selenium, zinc and copper were also detected but at concentration levels below the applicable standards.

Dissolved metals analysis indicated concentration levels above the applicable standards for the following constituents: Arsenic, first quarter = 9.3E-03 mg/L, second quarter = 8.9E-03 mg/L, third quarter = 0.014 mg/L and fourth quarter = 1.9E-03 mg/L. Barium, first and second quarter = 1.8 mg/L, third quarter = 2.7 mg/L and fourth quarter = 1.7 mg/L. Iron, first quarter = 3.0 mg/L, second quarter = 2.7 mg/L, third quarter = 1.9 mg/L and fourth quarter = 2.9 mg/L. Manganese, first quarter = 1.5 mg/L; second and third quarter = 1.6 mg/L and fourth quarter = 1.8 mg/L. Calcium, magnesium, selenium, sodium, uranium and zinc were also detected at concentration levels below the applicable standards.

Method 8270C analysis indicated detectable concentration levels above the applicable standards of 1-Methylnaphthalene as follows: First quarter 2012 at 0.015 mg/L; second quarter of 2009 at 4.2E-03 mg/L; second quarter 2010 at 0.033 mg/L; third and fourth quarters of 2011 at concentration levels of 0.012 mg/L and 0.01 mg/L. Phenol was detected for the first time in NAPIS-2 during the first quarter sampling event at 0.078 mg/L and again in the second quarter at 0.016 mg/L. Third and fourth quarter of 2012 indicated non-detectable levels.

Although naphthalene had non-detectable concentration levels for 2012, this constituent was first detected in the second quarter of 2009 at 0.03 mg/L. Subsequent sampling indicated detectable levels in the fourth quarter of 2009, first and second quarter of 2010 and in the first quarter of 2011.

In NAPIS-3, BTEX and MTBE were at non-detectable levels from 2008 through 2009 and fourth quarter 2010 through 2012. NAPIS-3 chloride levels were also above the applicable standards for 2012 in all four quarters. Fluoride was also detected at levels below the applicable standards. First quarter = 970 mg/L, second quarter 1000 mg/L, third quarter = 990 mg/L and fourth quarter results were 880 mg/L. Nitrate concentration levels were also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 19 mg/L to fourth quarter of 14 mg/L. Bromide and sulfates were also detected but at concentration levels below the applicable standards.

Total metals analysis indicated concentration levels above the applicable standards for the following constituents in NAPIS-3: Arsenic, first quarter = 0.006 mg/L, second quarter = 5.1E-

03mg/L, third quarter = 4.2E-03 mg/L and fourth quarter results 4.8E-03 mg/L. Iron, first quarter = 5.5 mg/L, second quarter = 2.4 mg/L, third quarter = 1.8 mg/L and fourth quarter = 9.9 mg/L. Manganese, fourth quarter = 0.46 mg/L. Uranium, first quarter 0.038 mg/L, second quarter 0.041 mg/L, third quarter 0.037 mg/L and fourth quarter 0.04 mg/L. Barium, chromium, copper, lead selenium, and zinc also had a detectable concentration level but all were below the applicable standards.

Dissolved metals analysis indicated concentration levels above the applicable standards for the following constituents: Arsenic, first quarter = 3.9E-03 mg/L, second quarter = 0.005 mg/L, third quarter = 0.004 mg/L and fourth quarter = 5.2E-03 mg/L. Iron, third quarter = 3.2 mg/L and fourth quarter = 15 mg/L. Manganese, fourth quarter = 0.39 mg/L. Uranium, first quarter = 0.032 mg/L, second quarter = 0.039 mg/L, third quarter = 0.038 mg/L and fourth quarter = 0.035 mg/L. Barium, calcium, chromium, copper, lead, magnesium, potassium, selenium, sodium and zinc also had a detectable concentration level but all were below the applicable standards.

In NAPIS-3 no SVOCs or VOCs were detected for 2012. In the past, two organic constituents 1-Methylnaphthalene (0.05 mg/L) and naphthalene (0.045 mg/L) were detected only in the second quarter of 2010 at concentration levels above the applicable standards.

In KA-3, BTEX constituents analyzed with concentration levels above the applicable standards are as follows: Benzene, first quarter = 0.015 mg/L and second quarter = 0.013 mg/L. Ethyl benzene, first quarter = 4.2E-03 mg/L and second quarter = 4.5E-03 mg/L.

MTBE for 2012 were at non-detectable concentration levels. In 2008 and 2009 sampling results indicated detectable concentration levels above the NMED Tap Water standard of 0.125 mg/L in the fourth quarter of 2008 at 0.13 mg/L and again in the second quarter of 2009 at 0.13 mg/L and in the third quarter at 0.17 mg/L. Toluene and total xylene were at non-detectable levels.

Fluoride and chloride levels were also above the applicable standards for 2012. Fluoride results for first quarter = 2.0 mg/L, second quarter = 1.3 mg/L and fourth quarter = 0.98 mg/L. Chloride concentration levels were also above the WQCC standards in all four quarters of 2012 ranging from first quarter of 440 mg/L to fourth quarter of 870 mg/L.

Nitrite and nitrates were also above the applicable standards. Nitrite, second quarter = 2.1 mg/L and fourth quarter 2.8 mg/L. Nitrate, first quarter 15 mg/L and second quarter = 11 mg/L.

Bromide, sulfate and GRO were also detected at concentration levels below the applicable standards.

Total metals analysis indicated concentration levels above the applicable standards for the following constituents in KA-3: Arsenic, first quarter = 6.5E-03 mg/L, second quarter = 5.7E-03mg/L, third quarter = 2.8E-03 mg/L and fourth quarter results of 0.006 mg/L. Barium was detected in the fourth quarter at 1.3 mg/L. Iron, first quarter = 24 mg/L, second quarter = 15 mg/L and fourth quarter = 30 mg/L. Manganese, first quarter = 1.8 mg/L, second quarter 0.93 mg/L, third quarter = 0.81 mg/L and fourth quarter = 1.7 mg/L. Uranium was detected in the fourth quarter at 0.032 mg/L. Chromium, copper, selenium and zinc were also detected at concentration levels below the applicable standards.

Dissolved metals analysis indicated concentration levels above the applicable standards for the following constituents: Arsenic, first quarter = 3.3E-03 mg/L, second quarter = 3.8E-03 mg/L, third quarter = 3.1E-03 mg/L and fourth quarter = 4.6E-03 mg/L. Iron, fourth quarter = 4.2 mg/L. Manganese, first quarter = 0.35 mg/L, second quarter = 0.38 mg/L, third quarter 0.39 mg/L and fourth quarter = 0.61 mg/L. Barium, calcium, chromium, lead, magnesium, potassium, selenium, sodium, uranium and zinc were also detected at concentration levels below the applicable standards.

In KA-3 no SVOCs or VOCs were detected for 2012. In the past, two analytes were detected at concentration levels above the applicable standards in the second and fourth quarter of 2009 which are 1-Methylnaphthalene and naphthalene and have shown up in 2010 and fourth quarter 2011 sampling activities.

6.1.6 OW-1, OW-10

OW-1 and OW-10 are sampled on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: Major cations/anions, 8260B plus MTBE, 8015B and WQCC Metals. Ground water samples were taken on the following dates:

- OW-1: 3/22/12, 6/13/12, 8/22/12, 11/27/12
- OW-10, 3/22/12, 6/13/12, 8/22/12, 11/27/12

OW-1 total metals analysis indicated concentration levels above the applicable standards for the following constituents: Uranium, first quarter 0.041 mg/L, second quarter = 0.039 mg/L, third quarter = 0.04 mg/L and fourth quarter 0.045 mg/L. Dissolved metals analysis indicated the detection of the following constituents: Arsenic, fourth quarter 1.2E-03 mg/L. Uranium, first quarter = 0.039 mg/L, second quarter 0.043 mg/L, third quarter 0.041 mg/L and fourth quarter 0.043 mg/L.

In OW-10, MTBE was also detected in the fourth quarter at 0.23 mg/L which is above the NMED Tap water standard of 0.125 mg/L. Chloride was also detected at a concentration level above the applicable standard in all four quarters. Results are as follows; first quarter = 260 mg/L, second quarter = 980 mg/L, third quarter = 280 mg/L and four quarter 2100 mg/L.

Total metals analysis indicated concentration levels above the applicable standards for the following constituents in OW-10: Uranium, first quarter 0.051 mg/L, second quarter = 0.062 mg/L, third quarter = 0.049 mg/L and fourth quarter 0.087 mg/L. Dissolved metals analysis indicated the following analytes: Arsenic, third quarter = 0.001 mg/L and fourth quarter 1.7E-03 mg/L. Uranium, first quarter = 0.048 mg/L, second quarter 0.067 mg/L, third quarter 0.05 mg/L and fourth quarter 0.078 mg/L.

6.1.7 OW-11

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

- OW-11: 8/22/12

Fluoride and sulfate concentration levels were above the applicable standards for 2012. Fluoride concentration level was 1.7 mg/L and sulfate was detected at 940 mg/L. Total metals analysis indicated detectable levels of uranium (0.22 mg/L) for 2012 which is above the WQCC standard. Dissolved metals analysis also indicated uranium at a detectable concentration level of 0.21 mg/L for 2012.

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

These wells are sampled on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: 8260B plus MTBE. These wells were sampled quarterly on the following dates:

- OW-13: 3/21/12, 6/14/12, 8/23/12, 11/27/12
- OW-14: 3/21/12, 6/14/12, 8/23/12, 11/27/12
- OW-29: 3/21/12, 6/13/12, 8/23/12, 11/27/12
- OW-30: 3/21/12, 6/14/12, 8/23/12, 11/27/12

In this group of wells OW-14 is the only well that has concentration levels above the WQCC standards for benzene, ethyl benzene and MTBE. Since its detection in 2006, concentration levels of benzene have slowly been on the rise. In 2006, benzene was detected at 3.4E-03 mg/L and in the last quarter of 2012, benzene concentration level was detected at 2.7 mg/L. A trend of benzene levels over the years can be seen in Section 12, Graph 9. Ethyl benzene was also detected in all four quarters of 2012 with first quarter at 0.051 mg/L, second quarter at 0.053 mg/L, third quarter at 0.037 mg/L and fourth quarter at 0.056 mg/L, which are all at levels above the WQCC standards. Trend of ethyl benzene is located on Graph 10, Section 12. MTBE was first detected in 2006 at a concentration level of 0.016 mg/L and has been on a steady incline through 2009 reaching its highest concentration level of 1.3 mg/L in the third quarter. 2010 highest concentration level was detected in the first quarter at 1.5 mg/L and the highest detected for 2011 was in the second quarter with a concentration level of 1.6 mg/L. 2012 sampling analyses indicate that the third quarter had the highest concentration level of MTBE for 2012 reaching 1.6 mg/L. See Graph 12, Section 12 for MTBE trend.

Method 8260B analysis indicated non-detectable levels of VOCs for 2012 for OW-14. However in the second half of 2009, three analytes were detected at concentration levels above the applicable standards and these are: 1,2-Dichloroethane, naphthalene and 1-Methylnaphthalene in OW-14.

In OW-29, MTBE was detected in all four quarters of 2012 at concentration levels above the NMED Tap Water standard of 0.125 mg/L and are listed as follows: First quarter = 0.62 mg/L, second quarter = 0.47 mg/L, third quarter = 1.0 mg/L and fourth quarter = 0.9 mg/L. MTBE

concentration levels have slowly been increasing since its detection in 2007 at 4.3E-03 mg/L. See Graph 11, Section 13 for MTBE trend.

No VOCs were detected in OW-29 for years 2012 through 2009. In one sampling event in the fourth quarter of 2008, one analyte, 1,2-Dichloroethane was detected in the fourth quarter of 2008 at 1.0E-03 mg/L.

In OW-30 MTBE was detected in all four quarters of 2012 at concentration levels above the NMED Tap Water standard of 0.125 mg/L. First quarter = 1.6 mg/L, second quarter = 1.5 mg/L, third quarter = 2.3 mg/L and fourth quarter = 2.2 mg/L. MTBE concentration levels in this particular well have also been increasing since its first detection in 2007 at 0.29 mg/L. See Graph 12, Section 12 for MTBE trend.

No VOCs were detected in OW-30 for years 2012 through 2010. 1,2-Dichloroethane was first detected in December 2007 at 1.2E-03 mg/L and again in 2008 and 2009 at 1.3E-03 mg/L.

6.1.9 OW-50, OW-52

OW-50 and OW-52 were installed in October 2009 to monitor the possible migration of MTBE from up-gradient wells OW-14, 29 and 30. These wells are sampled on a quarterly basis and third quarter was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: 8260B plus MTBE, 8270 plus phenol, 8015B, General Chemistry and WQCC Metals. These wells were resampled on 12/5/12 for SVOCs only as this particular suite was missed during the November sampling event. Wells were sampled on the following dates:

- OW-50: 3/22/12, 6/13/12, 8/23/12, 11/27/12
- Resampled: 12/5/12
- OW-52: 3/22/12, 6/13/12, 8/23/12, 11/27/12
- Resampled: 12/5/12

In the total metals category, iron was the only metal that had a detectable concentration level above the applicable WQCC standard in the fourth quarter at 1.3 mg/L. In the dissolved metals category, arsenic was the only constituent detected at concentration levels above the WQCC standard for all four quarters of 2012 at 1.9E-03 mg/L in OW-50.

No SVOCs were detected in 2012 and 2011. In the first quarter of 2010, bis (2-ethylhexyl) phthalate was detected at a concentration level of 0.011 mg/L. OW-52 had no detectable levels for BTEX, general chemistry, WQCC metals or SVOCs for 2012.

6.1.10 SMW-2, SMW-4

SMW-2 is located on the southeast corner of the closed Land Treatment Unit (LTU) and SMW-4 is located on the north side of the closed LTU. SMW-2 and SMW-4 are sampled on an annual basis. Ground water samples were analyzed for the following analytes: Major cations/anions, 8260B plus MTBE, 8015B, WQCC metals. Annual sampling was conducted on the following dates:

- SMW-2: 8/23/12
- SMW-4: 8/24/12

Both of these wells are also sampled every 10 years per our RCRA Post Closure Permit for the following parameters: General chemistry, Modified Skinner List Metals (total and dissolved) including mercury and cyanide and Modified Skinner List VOC, SVOC, and TPH. The next scheduled 10 year sampling event is to occur in year 2019.

Analytical laboratory analyses for BTEX indicate non-detectable levels in both SMW-2 and SMW-4 from 2007 through 2012. MTBE was detected in SMW-2 in 2008, 2010, 2011 and 2012 at concentration levels below the NMED Tap Water standard of 0.125 mg/L and none detected in SMW-4.

SMW-2 annual sampling analytical results indicated the detection of chloride (2400 mg/L) and sulfate (1600 mg/L) at concentration levels above the WQCC standard. Fluoride and bromide were also detected at concentration levels below the applicable standards. Gasoline Range Organics (GRO) was also detected at a concentration level of 0.28 mg/L. Total metals analysis indicated detectable concentration levels of the following metals: Arsenic at 0.005 mg/L, chromium at 0.17 mg/L, iron at 1.5 mg/L, manganese at 0.25 mg/L and uranium at 0.11 mg/L. Barium, selenium and zinc were also detected at concentration levels below the applicable standards. For dissolved metals, manganese had a concentration level of 0.22 mg/L and uranium

at 0.1 mg/L for 2012. Barium, calcium, iron, magnesium, potassium, sodium, selenium and zinc were also detected at levels below the applicable standards.

No VOCs or SVOCs were detected in 2012 and 2011. However in 2008, 1,4-Dioxane was detected at a concentration level of 1.48E-02 mg/L which is above the EPA RSL standard. 1,4-Dioxane was also detected in ground water samples collected for the 2008 annual sampling event in August 2008 with results of 1.36E-02 mg/L. This well was sampled again in November 2008 to confirm presence of the organic compound and results indicated no detectable levels.

In SMW-4 fluoride was detected at 1.0 mg/L which is above the EPA RSL standard of 0.93 mg/L. Chloride, bromide, and sulfates were also detected at concentration levels below the applicable standards. Total metals analysis indicated detectable concentration levels of the following metals: Arsenic at 3.3E-03 mg/L and uranium at 0.033 mg/L. Trace levels of barium, iron and manganese were also detected which are at levels below the applicable standards. For dissolved metals, arsenic had a concentration level of 2.8E-03 mg/L and uranium at 0.03 mg/L for 2012. Trace levels of barium, calcium and sodium were also detected which were below the applicable standards.

No VOCs or SVOCs were detected in 2012.

6.1.11 PW-3

PW-3 is a process/production well located directly north of the maintenance shop. Prior to 2009, this well was on a three year sampling schedule. Due to the detection of an organic compound, the sampling of this well was changed to annual pursuant to NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report 2009, annual sampling is required for PW-3 until otherwise directed by NMED. Ground water samples were analyzed for the following analytes. 8260B plus MTBE, 8270 plus phenol, WQCC Metals, cyanide and nitrates. The well was sampled on the following date:

- PW-3: 8-24-12

Total metals analysis indicated concentration levels above the EPA RSL standard for arsenic at 0.004 mg/L and dissolved metals was detected at 3.4E-03 mg/L. No VOCs or SVOCs were

detected during the 2012 annual sampling. During the annual sampling in 2007 which was conducted on 1/1/08, analytical data indicated the presence of 2-Methylnaphthalene at a concentration level of 0.032 mg/L and phenol at 0.8 mg/L. PW-3 was re-sampled in August 2008 along with a blind duplicate and analytical results confirmed no detectable concentration levels. Detection of these two analytes are suspect and may possibly be picked up from contamination by field or lab personnel as future samples have not indicated any detection of these two organic constituents since its discovery in 2008.

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

The RW series of wells are shallow recovery wells from which separate-phase hydrocarbons (SPH) have been recovered on a quarterly basis. Previously these wells were only inspected quarterly and no sampling was required. These wells were added to the annual sampling schedule per Approval with Modifications, 2010 Facility Wide Ground Water Monitoring Work Plan dated August 25, 2010 which requires all wells including the recovery wells containing separate phase hydrocarbons for sample collection. Annual sampling was conducted for the first time for the RW series of wells in 2011. The wells are sampled for the following analytes: Major cations/anions, 8260B plus MTBE, 8270 plus phenols and WQCC metals. The wells were inspected and sampled on the following dates:

- RW-1: 3/15/12, 6/4/12, 8/3/12, 10/8/12
- Sampled: 8/23/12
- RW-2: 3/15/12, 6/4/12, 8/13/12, 10/8/12
- Sampled: 8/24/12
- RW-5: 3/15/12, 6/4/12, 8/3/12, 10/8/12
- Sampled: 8/23/12
- RW-6: 3/15/12, 6/4/12, 8/13/12, 10/8/12
- Sampled: 8/23/12

RW-1 lab analysis indicated concentration levels above the WQCC standards for benzene, toluene, ethyl benzene, total xylene and MTBE for 2012 and 2011. Benzene was detected at 45 mg/L, toluene at 82 mg/L, ethyl benzene at 4.9 mg/L, total xylene at 31 mg/L and MTBE at 3.1 mg/L which are at concentration levels slightly higher than 2011 results. Chloride was the only anion detected at a concentration level above the WQCC standard with results at 380 mg/L. Bromide was also detected at a concentration level of 3.8 mg/L.

Total metals concentration levels detected above the applicable standard are as follows: Arsenic at 0.01 mg/L, barium at 3.7 mg/L, iron at 6.9 mg/L and manganese at 3.6 mg/L. Trace levels of selenium and uranium were also detected. Dissolved metals detected are as follows: Arsenic at 0.009 mg/L, barium at 3.6 mg/L, iron at 7.6 mg/L and manganese at 3.6 mg/L. Calcium, magnesium, potassium, selenium, sodium, uranium and zinc were also detected at concentration levels below the applicable standards.

VOCs and SVOCs detected in RW-1 above the applicable standards are as follows: 1,2,4-Trimethylbenzene at 2.8 mg/L, aniline at 0.16 mg/L, 2-Methylnaphthalene at 0.61 mg/L, 1-Methylnaphthalene at 0.3 mg/L, naphthalene at 0.89 mg/L, phenol at 0.11 mg/L and pyridine at 0.031 mg/L.

In RW-2, lab analysis indicated concentration levels above the WQCC standards for benzene, toluene, ethyl benzene, total xylene and MTBE for 2012 and 2011. Benzene was detected at 42 mg/L, toluene at 2.6 mg/L, ethyl benzene at 0.59 mg/L, total xylene at 1.7 mg/L and MTBE at 3.3 mg/L. General chemistry parameters were all at non-detectable levels for fluoride, nitrates, phosphorous and nitrates. Bromide was detected at 3.8 mg/L.

Total metals concentration levels detected above the applicable standard are as follows: Arsenic at 6.9E-03 mg/L, barium at 3.7 mg/L, iron at 10 mg/L and manganese at 2.1 mg/L. Trace levels of selenium was also detected in 2012. Dissolved metals detected are as follows: Arsenic at 7.3E-03 mg/L, barium at 3.5 mg/L, iron at 10 mg/L and manganese at 2.1 mg/L. Calcium, magnesium, selenium, sodium and zinc were also detected at concentration levels below the applicable standards.

SVOCs detected in RW-2 above the applicable standards are as follows: Aniline at 0.21 mg/L, 1-Methylnaphthalene at 0.043 mg/L, naphthalene at 0.043 mg/L and phenol at 0.091 mg/L.

In RW-5, lab analysis indicated concentration levels above the WQCC standards for benzene and ethyl benzene 2012 and 2011. Benzene was detected at 0.19 mg/L and ethyl benzene at 0.26 mg/L. Toluene was non-detect while total xylene was detected at 0.091 mg/L and MTBE was detected at 0.032 mg/L which are concentration levels below the applicable standard. General chemistry parameters were all undetectable and/or below the applicable standards for 2012.

Total metals concentration levels detected above the applicable standard are as follows: Arsenic at 3.3E-03 mg/L, barium at 3.1 mg/L, iron at 5.0 mg/L and manganese at 0.76 mg/L. Dissolved

metals detected are as follows: Arsenic at 2.2E-03 mg/L, barium at 2.7 mg/L, iron at 3.7 mg/L and manganese at 0.7 mg/L. Calcium, magnesium, selenium, sodium and zinc were also detected at concentration levels below the applicable standards.

VOCs and SVOCs detected in RW-5 above the applicable standards are as follows: 1,2,4-Trimethylbenzene at 0.054 mg/L, naphthalene at 0.11 mg/L, 1-Methylnaphthalene at 0.11 mg/L and 2-Methylnaphthalene at 0.17 mg/L.

In RW-6, lab analysis indicated concentration levels above the WQCC standards for benzene and ethyl benzene and total xylene for 2012. Benzene was detected at 0.74 mg/L, ethyl benzene at 0.4 mg/L and total xylene at 1.6 mg/L. Trace levels of toluene (0.052 mg/L) and MTBE (0.073 mg/L) were also detected at concentration levels below the applicable standards. General chemistry parameters were all at undetectable and or concentration levels below the applicable standards.

Total metals concentration levels detected above the applicable standard are as follows: Arsenic at 0.015 mg/L, barium at 3.7 mg/L, iron at 7.4 mg/L and manganese at 0.89 mg/L. Lead was also detected at a concentration level below the applicable standard. Dissolved metals detected are as follows: Arsenic at 0.015 mg/L, barium at 3.7 mg/L, iron at 8.3 mg/L and manganese at 0.92 mg/L. Calcium, lead, magnesium, selenium, sodium and zinc were also detected at concentration levels below the applicable standards.

VOCs and SVOCs detected in RW-6 above the applicable standards are as follows: 1,2,4-Trimethylbenzene at 0.38 mg/L, 1,3,5-Trimethylbenzene at 0.17 mg/L, naphthalene at 0.58 mg/L, 1-Methylnaphthalene at 0.22 mg/L and 2-Methylnaphthalene at 0.36 mg/L.

Quarterly inspections for RW-1 include product recovery which is conducted using a portable 2-inch bladder pump which is then lowered into the well. Purge water is collected in a 55 gallon drum or a 5 gallon bucket and the top visible layer of hydrocarbon is measured in inches before it is disposed of upstream of the NAPIS. Calculations are an estimated value based on the sampler's field notes. The purged water is disposed of upstream of the NAPIS.

RW-1 has shown a steady decrease of hydrocarbon levels from 2005 to 2012. Total hydrocarbon recovery for 2012 is 0.97 gallons compared to 2005 where 431.5 gallons of hydrocarbons was recovered from RW-1. RW-2 has not shown any hydrocarbon levels during quarterly inspections and therefore no product recovery is done at this well only DTW measurement is recorded. In

RW-5 and RW-6, water is purged using a 3 foot disposable bailer. Purge water is collected in a 5 gallon bucket and disposed of upstream of the NAPIS. Visible layer of hydrocarbon is measured as best as practical in inches and recorded in the field log and calculations are based on estimated values. RW-5 has shown a steady decrease of hydrocarbon levels compared to 2005 where 17 gallons was recovered and in 2012 there was no measurable product to recover. RW-6 has also shown a decrease in product recovery compared to 2005 where 17 gallons of product was recovered and 0.22 gallons of product was estimated to have been recovered 2011 and in 2012 there was no measurable product to recover. 2012 through 2010 inspections in RW-5 indicate no measureable hydrocarbon layer in this well. Total year to date hydrocarbon recovery from RW-6 was 0 gallons compared to 2011 where 0.22 gallons was recovered. Although no measureable hydrocarbon level is detected in RW-5 and RW-6, both wells continue to be purged. A slight odor can be detected when the well cap is removed and also in the purged water, an oily sheen is observed.

6.2 WELLS WITH CONSTITUENT LEVELS BELOW STANDARDS

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

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

- BW-1A: 8/23/12
- BW-1B: 8/23/12
- BW-1C: 8/24/12

BW-1A and BW-1B annual inspection indicated that both of these wells were dry. There was no indication of a water level when DTW measurements were taken and therefore no samples were collected from BW-1A and BW-1B.

BW-1C continues to show non-detectable levels of BTEX plus MTBE since 2006.. Chloride and sulfates were detected but at concentration levels below the applicable standards for 2012, as well as bromide. Total metals detected at concentration levels below the applicable standards are as

follows: Barium, copper, iron, manganese, uranium and zinc. Dissolved metals detected are as follows also at concentration levels below the applicable standards: Barium, calcium, manganese, potassium, sodium and uranium. No VOCs or SVOCs were detected in this well.

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

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

- BW-2A: 8/24/12
- BW-2B: 8/24/12
- BW-2C: 8/24/12

All three wells in this group have shown non-detectable levels of BTEX plus MTBE since 2006. Chloride, bromide, nitrate, and sulfate were all detected in all three of the wells but at concentration levels below the applicable standard. The following total metals were detected at concentration levels below the applicable standards in BW-2A through 2C: Barium, iron, and manganese. Chromium, uranium and zinc were found in BW-2C at concentration levels below the applicable standards. Dissolved metals detected in BW-2A through 2C at concentration levels below the applicable standards are as follows: Barium, calcium, iron, magnesium, manganese and sodium. Potassium, selenium, uranium and zinc were detected at concentration levels below the applicable standards in BW-2B. In BW-2C cadmium, potassium, uranium and zinc were also detected at concentration levels below the applicable standard. No VOCs or SVOCs were detected in either of these wells.

6.2.3 BW-3A, 3B, 3C

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

- BW-3A: 8/23/12
- BW-3B: 8/23/12
- BW-3C: 8/23/12

In BW-3A annual inspection indicated no indication of a water level when DTW measurements were taken and therefore no samples were collected for 2012. BW-3B and BW-3C in this group have shown non-detectable levels of BTEX plus MTBE since 2006. Chloride, bromide and sulfates were detected in both wells at concentration levels below the applicable standards. The following metals were detected at concentration levels below the applicable standards: Barium, iron, and zinc. Chromium was found in BW-3B and manganese in BW-3C at concentration levels below the applicable standards. Dissolved metals detected are as follows also at concentration levels below the applicable standards: Barium, Calcium, iron, and manganese. Magnesium and selenium in BW-3B and potassium, uranium and zinc in BW-3C, all detected at concentration levels below the applicable standards. In 2009 the organic compound, bis (2-ethylhexyl) phthalate was detected in BW-3B at a concentration level of 0.01 mg/L for the first time and also in BW-3C in 2011 at a concentration level of 0.014 mg/L. Subsequent sampling has indicated non-detectable levels of this organic compound since its first detection.

6.2.4 GWM-2, GWM-3

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

- GWM-2: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- GWM-3: 3/20/12, 6/12/12, 8/21/12, 11/28/12

2012 quarterly inspections of both of these wells continued to indicate a measureable water level in all four quarters of 2012. Notification to NMED and OCD procedures were followed and no special bailing or monitoring was required by NMED. After samples were collected, both wells were purged of remaining water.

GWM-2 had non-detectable levels of benzene, toluene, ethyl benzene and total xylene since 2008. There were detectable concentration levels of MTBE since 2008 but at levels below the NMED Tap Water standard of 0.125 mg/L. Bromide was also detected at 7.5 mg/L. Total and dissolved metals analysis was run for the first time as a sampling requirement for the annual sampling event completed in August 2012. The following total metals were detected at concentration levels below the applicable standards in GWM-2: barium, copper, iron, lead, selenium and zinc. Dissolved metals and cations are as follows: barium, calcium, copper, iron, lead, magnesium, potassium, selenium, sodium and zinc.

GWM-3 had non-detectable levels of benzene, toluene, ethyl benzene and total xylene since 2008. There were detectable concentration levels of MTBE since 2008 but at levels below the NM Tap Water RSL standard of 0.125 mg/L. Bromide and nitrate were also detected at concentration levels below the applicable standard and also a detection of GRO at 0.088 mg/L which was detected in the fourth quarter in GWM-3. Total and dissolved metals analysis was run for the first time as a sampling requirement for the annual sampling event completed in August 2012. The following total metals were detected at concentration levels below the applicable standards in GWM-3: barium, copper, iron, lead, selenium and zinc. Dissolved metals and cations are as follows: barium, calcium, copper, iron, magnesium, potassium, selenium, sodium and zinc.

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

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

- MW-1: 8/24/12
- MW-2: 8/24/12
- MW-4: 8/21/12
- MW-5: 8/23/12

BTEX plus MTBE and method 8015B analysis indicated non-detectable levels for all four wells during the annual sampling event. Fluoride, chloride, bromide and sulfate were detected at concentration levels below the applicable standards in all four wells. DRO and GRO were all at undetectable concentration levels. Total metals and cations were detected in all four wells at

concentration levels below the applicable standards. The following is a list of the total metals detected: Barium, iron, manganese and uranium. Dissolved metals and cations were detected in all four wells at concentration levels below the applicable standards. The following is a list of the dissolved metals detected in all four wells: Barium, calcium, manganese, sodium, uranium and zinc and potassium in MW-1.

6.2.6 OW-1 AND OW-10

In the approved 2010 FWGWMP (August 25, 2010), inspection requirements were modified on both of these wells to include sampling on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: Major cations/anions, 8260B plus MTBE, 8015B and WQCC Metals. Ground water samples were taken on the following dates:

- OW-1: 3/22/12, 6/13/12, 8/22/12, 11/27/12
- OW-10: 3/22/12, 6/13/12, 8/22/12, 11/27/12

BTEX results indicated non-detectable concentration levels for both OW-1 and OW-10 from 2010 to 2012. In OW-1, MTBE was detected in the first, second and third quarter at concentration levels below the NMED Tap Water standard of 0.125 mg/L. Trace levels of fluoride, chloride, bromide and sulfate was detected at concentration levels below the applicable standards. The following metals were also detected at concentration levels below the applicable standards: Barium, iron, manganese, and selenium. Dissolved metals detected also at concentration levels below the applicable standards are as follows: Barium, calcium, manganese, potassium, selenium, sodium and zinc. No VOCs have ever been detected in OW-1.

OW-10 had detectable concentration levels of fluoride, bromide, nitrates and sulfates at concentration levels below the applicable standards. GRO was also detected in the first, second and fourth quarter. Total metals detected at concentration levels below the applicable standards are as follows: Barium, iron, manganese and selenium. Dissolved metals indicated the following detectable concentration levels below the applicable standards: Barium, calcium, manganese, potassium, selenium, sodium and zinc. The organic constituent 1,1-Dichloroethane was detected for the first time at a concentration level of 1.3E-03 mg/L and again in November 2012 at a concentration level of 1.6E-03 mg/L. Two other organic compounds 1,2-Dichloroethane (EDC) and 1,1-Dichloroethene were detected for the first time at concentration levels below the

applicable standards in the fourth quarter with results of 1.1E-03 mg/L for 1,2-Dichloroethane (EDC) and 2.1E-03 mg/L for 1,1-Dichloroethene.

6.2.7 OW-11, OW-12

These wells are sampled on an annual basis. Ground water samples are analyzed for the following analytes for OW-11: Major cations/anions, 8260B plus MTBE, 8270 plus phenol, and WQCC Metals. OW-12: 8260B plus MTBE. Wells were sampled on the following date:

- OW-11: 8/22/12
- OW-12: 8/22/12

BTEX plus MTBE concentrations levels indicated non-detect for all four quarters for both wells. Chloride and bromide were detected at concentration levels below the applicable standards in OW-11. OW-12 had detectable concentration levels of fluoride, chloride, bromide and sulfate below the applicable standards. Total metals analysis indicated detectable levels of the following metals and cations in OW-11: Barium iron, manganese and selenium which are at concentration levels below the applicable standards. In OW-12, barium, iron, manganese and uranium were detected. Dissolved metals also had detectable concentration levels below the applicable standards of the following metals and cations in OW-11: arsenic, barium, calcium, magnesium, manganese, potassium, selenium, sodium and zinc. In OW-12 the following dissolved metals were detected: arsenic, barium, calcium, iron, manganese, sodium, uranium and zinc.

6.2.8 OW-50, OW-52

OW-50 and 52 are sampled on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. Ground water samples are analyzed for the following analytes: 8260B plus MTBE, 8270 plus phenol, 8015B, General Chemistry and WQCC Metals. Method 8270C analysis was sampled on 12/5/12 as this method was missed during the scheduled quarterly sampling which was completed in November 2012. Wells were sampled on the following dates:

- OW-50: 3/22/12, 6/13/12, 8/23/12, 11/27/12
- Resampled: 12/5/12
- OW-52; 3/22/12, 6/13/12, 8/23/12, 11/27/12
- Resampled: 12/5/12

2012 analytical data indicate non-detectable concentration levels of BTEX and MTBE from 2009 to 2012. Fluoride, chloride, bromide, and sulfates were detected in both OW-50 and 52 at concentration levels below the applicable standards. The following metals were detected in both wells at concentration levels below the applicable standard: barium, copper, iron, manganese, uranium and zinc. Dissolved metals also indicated the following metals found in OW-50 and 52 at concentration levels below the applicable standards: barium, calcium, iron, manganese potassium, sodium, uranium and zinc.

Trace level of bis (2-ethylhexyl) phthalate (0.011 mg/L) and benzoic acid (0.02 mg/L) were detected in OW-50 during the first quarter 2010 sampling. Subsequent sampling results indicate non-detectable concentration levels for the remainder of 2010, 2011 and 2012.

6.2.9 PW-2, PW-3, PW-4

These process/production wells are on a 3 year sampling schedule beginning in 2008 for PW-2 and PW-3 and a start year of 2007 for PW-4. PW-3 sampling schedule was changed to annual sampling in 2009 due to the detection of 2-Methylnaphthalene (0.032 mg/L) during the annual sampling for 2007 which was conducted on 1/1/08. Pursuant to NMED's Comment 12 of the May 16, 2011 NOD (May 2011 NOD) for the Annual Ground Water Monitoring Report 2009, annual sampling is required for PW-3 until otherwise directed by NMED. Ground water samples are analyzed for the following analytes: 8260B plus MTBE, 8270 plus phenols, WQCC Metals, cyanide and nitrates. Only PW-3 was scheduled for sampling in 2012.

- PW-3: 8/24/12

BTEX and MTBE analytical results indicate non-detectable concentration levels in 2012 for PW-3. The following metals were detected at concentration levels below the applicable standards during the 2012 annual sampling event: Barium, iron, cyanide and zinc, calcium, potassium, selenium and sodium. No organic compounds were detected in PW-3 for 2012.

6.3 EVAPORATION PONDS, INFLUENTS, EFFLUENTS, BOILER WATER TO EP-2 AND LEAK DETECTION UNITS – CONSTITUENT LEVELS.

6.3.1 EVAPORATION PONDS 1 THROUGH 12B

In 2011, the approved FWGWMP (August 25, 2010) added ponds 9a, 11, 12A and 12B to the monitoring schedule as well as sampling frequency was changed to semi-annual. Prior to the approved 2010 FWGWMP, the ponds were sampled on an annual basis. Evaporation pond water samples are analyzed for the following analytes: General Chemistry, 8260B plus MTBE, WQCC metals, 8270 plus phenol, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), E-Coli Bacteria. The ponds were sampled on the following dates:

- EP-1 thru EP-12B: 5/29/12, 5/30/12, 11/6/12, 11/7/12

Laboratory analysis of BTEX plus MTBE indicates non-detectable concentration levels for 2012 for evaporation ponds EP-1 through EP-12B. Fluoride, chloride and sulfates were detected in all of the ponds at concentration levels above the WQCC standards. Bromide was also detected in ponds 1 through 12B. In EP1 - 5 and 11- 12B, BOD and COD analyses indicate concentration levels above the WQCC general requirement standards. EP-6 thru EP-9 had detectable concentration levels of COD for 2012 and BOD concentration levels were detected below the applicable standards. Total metals analyses indicate that arsenic was detected in ponds EP-1 through EP-12B at concentration levels above the applicable standard. Mercury only detected in EP-1 at concentration levels above the applicable standard, however trace levels were also detected in EP-2, EP-3 and EP-12B. Iron and manganese were detected in ponds 1 through 12B also at concentrations levels above the applicable standards. Trace levels of barium, chromium, copper, selenium, and zinc were also detected at concentration levels below the applicable standards. Dissolved metals analyses also indicated the following had detectable concentration levels above the applicable standards in ponds 1 through 12B: Arsenic and manganese. The metal iron was also detected in ponds 1 through 3 at concentration levels above the applicable standards. Selenium was detected in ponds 7, 8 and 9 at concentration levels above the applicable standards. Barium, calcium, chromium, potassium, selenium, sodium, uranium and zinc were also detected at concentrations below the applicable standards.

In EP-4, carbon disulfide was detected at a concentration level of 0.78 mg/L and EP-5 at 1.3 mg/L in the second half of 2012 which is above the applicable standard. The following organic constituents were detected at concentration levels below the applicable standards for 2012: Acetone, carbon disulfide, in EP-1 and EP-3; acetone, 2-Butanone in EP-2; acetone in EP-4. Semi-volatile organic constituents detected at concentration levels above the applicable standard are as follows: EP-1 through EP-6, aniline and phenol; EP-11, EP-12A, phenol and in EP-12B aniline and phenol. Trace levels of 2,4-Dimethylphenol, 2-Methylphenol, 3+4-Methylphenol were detected in EP-1 through EP-5. In EP-11 and EP-12A, 2-Methylphenol and 3+4-Methylphenol were detected at concentration levels below the applicable standards. EP-12B had detection levels of 2,4-Dimethylphenol, 2-Methylphenol and 3+4-Methylphenol below the applicable standards.

6.3.2 INFLUENTS: INFL TO AL-1; INFL TO AL-2; INFL TO EP-1

Beginning the third quarter of 2012, Influent to AL-1 was no longer in operation due to the start up of the new WWTP. All waste water is now routed to the WWTP via Tank 35 and the NAPIS. The only waste water going into aeration lagoon 1 is from the pilot lift station. Samples are no longer collected from the location known as Infl to AL-1.

These outfalls are sampled on a quarterly basis. Boiler Water to Evaporation Pond 2 (EP-2) is sampled on a semi-annual basis. Outfalls are analyzed for the following analytes. Influent to AL-1 and AL-2: 8260B plus MTBE, BOD, COD, Chloride, 8015B, pH and Phenol. Influent to EP-1: Major cations/anions, pH, BOD, COD, 8260B plus MTBE, 8270 plus phenol, 8015B, and WQCC Metals. Method 8270 analysis was missed during the November sampling event and on 12/5/12 samples were collected. Influents were sampled on the following dates:

- Infl to AL-1: 3/21/12, 6/14/12
- Infl to AL-2: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12
- Infl to EP-1: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12

In the first half of 2012, Influent to AL-1 BTEX analyses indicated concentration levels above the applicable standards for benzene, toluene, ethyl benzene and total xylene. MTBE analysis continued to indicate non-detectable levels from 2010 through 2012.

Infl to AL-2 had non-detectable BTEX and MTBE concentration levels for 2012. Chloride concentration levels were above the applicable standards for Influent to AL-1 and AL-2. Ph was also outside of the range specified by WQCC in Infl to AL-1, with pH levels ranging from 9.13 in the first quarter to 8.73 in the second quarter. DRO was also detected at a concentration level above the NMED Table 6 (unknown oil) TPH screening guidelines for Potable Ground Water (GW-1) (Jun 2012) for the first and second quarter. BOD and COD concentration levels were above the applicable standards for the first and second quarters of 2012.

The following VOCs were detected in Infl to AL-1 at concentration levels above the applicable standards: 1,2,4-Trimethylbenzene, naphthalene, 1-Methylnaphthalene, and 2-Methyl-naphthalene, aniline, 2,4-Dimethylphenol, 2-Methylphenol and phenol. The following organic compounds were also detected at concentration levels below the applicable standards: 1,3,5-Trimethylbenzene, acetone, 2-Butanone, n-Propylbenzene, benzyl alcohol, 3+4-Methylhenol, phenanthrene and carbazole.

In Infl to AL-2, no VOCs were detected for 2012 that had concentration levels above the applicable standards. In the first quarter the following SVOCs were detected at concentration levels above the applicable standards: Aniline, 2-Methylphenol, phenol and bis (2-ethylhexyl) phthalate which was detected for the first time at a concentration level of 0.072 mg/L in the third quarter of 2012. Trace levels of the following SVOCs were also detected: Acetone, 2-Butanone, 2,4-Dimethylphenol and 3+4-Methylphenol at concentration levels below the applicable standards.

Infl to EP-1, BTEX and MTBE analyses were all at non-detectable levels for 2012. Fluoride, chloride and sulfate were detected at concentration levels above the applicable standards for 2012. DRO concentration levels were also above the applicable standards for all four quarters ranging from 12 mg/L in the first quarter to 9.2 mg/L in the fourth quarter. BOD and COD concentration levels were above the applicable standards for 2012. Total metals detected in Infl to EP-1 at concentration levels above the applicable standards are as follows: Arsenic, iron, manganese and mercury. Barium, chromium, copper, lead, manganese, selenium, uranium and zinc all had detectable concentration levels which were below the applicable standards for 2012.

Dissolved metals analyses detected concentration levels of arsenic, iron and manganese. Barium, calcium, copper, magnesium, potassium, selenium, sodium, uranium and zinc were also detected at concentration levels below the applicable standards.

No VOCs were detected in Infl to EP-1 at concentration levels above the applicable standards; however acetone and 2-butanone were detected at concentration levels below the applicable standards for 2012. SVOCs detected include, aniline, 2-Methylphenol and phenol all at concentration levels above the applicable standard. 2,4-Dimethylphenol and 3+4-Methylphenol were also detected at concentration levels below the applicable standard for 2012.

6.3.3 EFFLUENTS: AL-2 TO EP-1; PILOT EFFLUENT, NAPIS EFFLUENT

Beginning the third quarter of 2012, NAPIS effluent was rerouted to the new WWTP via Tank 35, and the NAPIS. All waste water is now routed to the WWTP via Tank 35 and the NAPIS and the only waste water going into aeration lagoon 1 is from the pilot lift station. Samples are no longer collected from location NAPIS Effluent.

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

- AL-2 to EP-1: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Resampled: 12/5/12
- Pilot Effluent: 3/20/12, 6/12/12, 8/21/12, 12/5/12
- NAPIS Effluent: 3/21/12, 6/12/12

AL-2 to EP-1, samples caught on 12/5/12 were for SVOCs only as this particular suite was missed during the fourth quarter sampling event. In Al-2 to EP-1, BTEX and MTBE concentration levels were all undetectable for 2012. Fluoride, chloride and sulfates were detected at concentration levels above the applicable standards as follows: Fluoride ranged from first quarter 57 mg/L to fourth quarter 4.5 mg/L; chloride ranged from first quarter 2200 mg/L to 380

mg/L in the fourth quarter; sulfate concentration levels ranged from 780 mg/L in the first quarter to a high of 1200 mg/L in the second quarter. Bromide was also detected in the first and second quarter at 5.0 mg/L and 1.6 mg/L. DRO was also detected in all four quarters at concentration levels above the applicable standard as follows: First quarter 15 mg/L, second quarter 9.0 mg/L, third quarter 2.8 mg/L and fourth quarter 7.8 mg/L.

Total metals analysis detected the following metals at concentration levels above the applicable standards: arsenic, iron, manganese and mercury. Trace levels of barium, chromium, copper, selenium, uranium and zinc were also detected at concentration levels below the applicable standards throughout the year. Dissolved metals analysis detected the following metals at concentration levels above the applicable standard: Arsenic, iron, and manganese. Trace levels of barium, calcium, chromium, lead, magnesium, potassium, selenium, sodium, uranium and zinc were also detected at concentration levels below the applicable standards in 2012.

In 2008 through 2011, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, naphthalene, 1-Methylnaphthalene and 2-Methylnaphthalene have been detected in the samples collected at concentration levels above the applicable standards. In 2012, concentration levels for the above listed organics have been at non-detectable levels. Trace levels of acetone, 2-Butanone and carbon disulfide have also been detected at concentration levels below the applicable standards. Three semi-volatile organic compounds were detected in the first and fourth quarter and are listed as follows: Aniline at 0.38 mg/L = first quarter; 2-Methylphenol at 1.4 mg/L = first quarter, and phenol at 5.4 mg/L in the first quarter and 0.074 mg/L in the fourth quarter. All concentrations detected are above the applicable standards. Trace levels of 3+4-Methylphenol was also detected only in the first quarter at 2.1 mg/L.

Pilot Effluent had no detectable concentration levels for BTEX and MTBE for 2012. DRO was detected in the first quarter at 4.7 mg/L, second quarter at 7.6 mg/L, third quarter at 3.5 mg/L which are all at concentration levels above the applicable standard. GRO analysis indicated non-detect for 2012and Motor Oil Range Organics (MRO) was detected in the second quarter at 5.1 mg/L. BOD and COD concentration levels were all above the applicable standards for 2012. Total metals analysis detected the following metals: Arsenic first quarter = 6.1E-03 mg/L, second quarter = 2.7E-03 mg/L, third quarter 3.5E-03 mg/L and fourth quarter = 2.7E-03 mg/L. Iron was also detected in the first quarter at 1.1 mg/L which is above the applicable standard and only trace levels detected for the remainder of the year. Trace levels of barium, chromium, copper, lead, selenium and zinc were also detected at concentration levels below the applicable

standards. Dissolved metals detected at concentration levels above the applicable standards are as follows: Arsenic, first quarter = 3.7E-03 mg/L, second quarter = <0.005 mg/L, third quarter = 1.2E-03 mg/L and fourth quarter = 1.1E-03 mg/L. The following dissolved metals were also detected at concentration levels below the applicable standards: barium, chromium, copper, iron, manganese, selenium, uranium and zinc. No VOCs were detected at concentration levels above the applicable standard; however acetone, carbon disulfide, chloroform, and 4-Isopropyl were detected at concentration levels below the applicable standards.

In the NAPIS Effluent, BTEX was detected at concentration levels above the applicable standards for 2012. The following are the results: Benzene first quarter = 11 mg/L, second quarter = 8.9 mg/L; toluene, first quarter = 20 mg/L and second quarter = 14 mg/L; ethyl benzene first quarter = 1.3 mg/L and second quarter = 1.4 mg/L; total xylene first quarter = 7.8 mg/L and second quarter 8.4 mg/L. MTBE did not have detectable concentration levels for 2012.

Fluoride, chloride, and sulfate were detected at concentration levels above the applicable standards for 2012. Bromide and nitrate were also detected during the first and second quarters. DRO was detected in the first quarter at 23 mg/L and 98 mg/L in the second quarter which are at concentration levels above the applicable standards. GRO also had detectable levels in the first and second quarter.

Total metals detected above the applicable standard are as follows: Arsenic = 0.013 mg/L in the first quarter and 7.3E-03 mg/L in the second quarter; Iron = 3.3 mg/L in the first quarter and 11 mg/L in the second quarter; Mercury = 1.7E-03 mg/L in the first quarter and 4.6E-03 mg/L in the second quarter. Trace levels of barium, chromium, copper, lead, manganese, selenium and zinc were also detected in 2012. Dissolved metals which were above the applicable standards are as follows: Arsenic = 6.3E-03 mg/L in the first quarter and <0.005 mg/L in the second quarter; Iron = 0.5 mg/L in the first quarter and 3.3 mg/L in the second quarter; Selenium = 0.051 mg/L in the first quarter and 0.015 mg/L in the second quarter. Trace levels of barium, calcium, chromium, magnesium, manganese, potassium, sodium, and zinc were also detected for 2012.

VOCs detected with concentration levels above the applicable standards are as follows: 1,2,4-Trimethyl benzene first quarter 0.9 mg/L and second quarter 1.6 mg/L; 1,3,5-Trimethyl benzene first quarter 0.27 mg/L and 0.56 mg/L in the second quarter; naphthalene first quarter 0.32 mg/L and second quarter 0.39 mg/L; 2-Methylnaphthalene second quarter 0.48 mg/L and acetone in the first quarter 14 mg/L and 7.2 mg/L in the second quarter. Isopropylbenzene and n-

Propylbenzene were also detected in the first and second quarter. SVOCs detected with concentration levels above the applicable standards are as follows: Aniline first quarter 0.63 mg/L and second quarter 0.6 mg/L; 2,4-Dimethylphenol first quarter 0.33 mg/L and second quarter 0.53 mg/L; 2-Methylnaphthalene first quarter 0.11 mg/L and second quarter 1.3 mg/L, 2-Methylphenol first quarter 2.2 mg/L and second quarter 2.0 mg/L; 2-Methylphenol first quarter = 2.2 mg/L and second quarter = 2.0 mg/L; naphthalene first quarter 0.17 mg/L and second quarter 0.53 mg/L; phenol first quarter 8.6 mg/L and second quarter 7.8 mg/L; 1-Methylnaphthalene first quarter 0.073 mg/L and second quarter 0.84 mg/L. Carbazole, 3+4-Methylphenol and phenanthrene were also detected.

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

The LDU or otherwise known as the NAPIS secondary containment units identified as East LDU, West LDU and Oil Sump LDU, are a new addition to the approved 2010 FWGWMP (August 25, 2010). These units are sampled and inspected on a quarterly basis. Third quarter sampling was combined with the annual sampling event per approval from NMED and OCD. LDUs are sampled for the following analytes: 8021B plus MTBE, 8015B and WQCC Metals. The units were sampled on the following dates:

- East LDU: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- West LDU: 3/20/12, 6/12/12, 8/21/12, 11/28/12
- Oil Sump LDU: 3/20/12, 6/12/12, 8/21/12, 11/28/12

In the East LDU, BTEX was detected at concentration levels above the WQCC standards as follows: Benzene = first quarter 1.4 mg/L, second quarter 1.3 mg/L, third quarter 1.2 mg/L and fourth quarter 1.1 mg/L; Toluene = first quarter 3.1 mg/L, second quarter 1.1 mg/L, and fourth quarter 0.89 mg/L; ethyl benzene = first quarter 0.56 mg/L, second and third quarter 0.46 mg/L and fourth quarter 0.51 mg/L; total xylene = first quarter 8.0 mg/L, second quarter 6.3 mg/L, third quarter 5.7 mg/L and fourth quarter 6.7 mg/L. There was no detectable concentration level of MTBE for 2012.. DRO has been detected in this unit since March 2010 (16000 mg/L) through fourth quarter 2012 (19 mg/L).

Total metals detected in the East LDU are as follows: Arsenic, cadmium, chromium, iron, and manganese which were all at concentration levels above the applicable standards. Barium, selenium and zinc were also detected at concentration levels below the applicable standard. Dissolved metals detected in the East LDU are as follows: Arsenic, chromium and manganese which were all at concentration levels above the applicable standards. Barium, iron, selenium and zinc were also detected at concentration levels below the applicable standard. VOCs detected are as follows that were above the applicable standards: 1,2,4-Trimethylbenzene (0.84 mg/L) and 1,3,5-Trimethylbenzene (0.28 mg/L).

West LDU, BTEX was detected at concentration levels above the WQCC standards as follows: Benzene = first quarter 1.6 mg/L, second quarter 1.4 mg/L, third quarter 1.8 mg/L and fourth quarter 2.0 mg/L; Toluene = first quarter 6.0 mg/L, second quarter 3.5 mg/L, third quarter 3.2 mg/L, fourth quarter 1.9 mg/L; ethyl benzene = first quarter 0.69 mg/L, second quarter 0.41 mg/L, third quarter 0.66 mg/L and fourth quarter 0.57 mg/L; total xylene = first quarter 7.6 mg/L, second quarter 5.7 mg/L, third quarter 3.1 mg/L and fourth quarter 5.1 mg/L. There was no detectable concentration level of MTBE for 2012. DRO has been detected in this unit since March 2010 (16 mg/L) through fourth quarter 2012 (5.7 mg/L).

Total metals detected in the West LDU are as follows: Arsenic, chromium, iron, and manganese which were all at concentration levels above the applicable standards. Barium, selenium and zinc were also detected at concentration levels below the applicable standard. Dissolved metals detected in the West LDU are as follows: Arsenic, chromium and manganese which were all at concentration levels above the applicable standards. Barium, iron, selenium and zinc were also detected at concentration levels below the applicable standard. VOCs detected are as follows that were above the applicable standards: 1,2,4-Trimethylbenzene (0.55 mg/L) and 1,3,5-Trimethylbenzne (0.24 mg/L).

Oil Sump LDU, BTEX was detected at concentration levels above the WQCC standards as follows: Benzene = first quarter 2.0 mg/L, second quarter 2.1 mg/L, third quarter 1.8 mg/L and fourth quarter 2.7 mg/L; Toluene = first quarter 8.1 mg/L, second quarter 6.2 mg/L, third quarter 6.0 mg/L, fourth quarter 6.6 mg/L; ethyl benzene = first quarter 0.89 mg/L, second and third quarter 0.59 mg/L, and fourth quarter 0.57 mg/L; total xylene = first quarter 6.9 mg/L, second quarter 5.1 mg/L, third quarter 5.5 mg/L and fourth quarter 5.4 mg/L. There was no detectable concentration level of MTBE for 2012. DRO has been detected in this unit since March 2010 (35 mg/L), through fourth quarter 2012 (13 mg/L).

Total metals detected in the Oil Sump LDU are as follows: Arsenic, chromium, iron, manganese and mercury which were all at concentration levels above the applicable standards. Barium, copper, lead, selenium and zinc were also detected at concentration levels below the applicable standard. Dissolved metals detected in the Oil Sump LDU are as follows: Arsenic, chromium and manganese which were all at concentration levels above the applicable standards. Barium, iron, selenium and zinc were also detected at concentration levels below the applicable standard. VOCs detected are as follows that were above the applicable standards: 1,2,4-Trimethylbenzene (0.85 mg/L) and 1,3,5-Trimethylbenzene (0.27 mg/L).

6.3.5 BOILER WATER TO EVAPORATION POND 2 (BW TO EP-2)

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

- BW to EP-2: 5-29-12, 11-6-12

BW is defined as reverse osmosis water coming from the units (Boiler). BW to EP-2 had detectable concentration levels of fluoride in the first and second semi-annual sampling event (0.82 mg/L and 1.4 mg/L). Sulfates were also detected in 2012 at concentration levels above the applicable standards (1700 mg/L and 1900 mg/L). Chloride, and bromide were also detected at concentration levels below the applicable standards for 2012. Calcium, potassium and sodium also had detectable concentration levels for 2012.

6.3.6 EVAPORATION POND 2 INLET (EP-2 INLET)

EP-2 Inlet designation was changed in the second half of 2012 due to the startup of the new WWTP and use of the new pond STP-1. STP-1 effluent now flows into the northeast corner of EP-2. 2012 sample taken for EP-2 Inlet is from STP-1 inlet flow. EP-2 Inlet is sampled on an annual basis and sampled for the following analytes: 8260B plus MTBE, 8015B, BOD, COD and TDS. EP-2 Inlet was sampled on the following date:

- EP-2 Inlet: 8/21/12

BTEX and MTBE concentration levels were all undetectable. DRO and GRO were also found to have non-detectable concentration levels and TDS was detected at 3720 mg/L, which is down from the previous year of 6730 mg/L. BOD and COD concentration levels were <2.0 for BOD and <10.0 for COD which is also down from the previous year of 410 mg/L (BOD) and 1520 mg/L (COD). No VOCs were detected in 2012.

6.4 OCD GROUNDWATER DISCHARGE PERMIT GW-032

On February 15, 2012, Ground Water Discharge Permit GW-032 was rescinded by OCD. We are however required to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (Remediation) under case number AP-111.

The new waste water treatment plant (WWTP) was put into service in late April 2012. With this came revisions to influent and effluent sample locations at the aeration lagoons, evaporation pond 2 and at the NAPIS. In the second half of 2012, sample location NAPIS Effluent (NAPIS EFF) and Influent to AL-1 (Infl to AL-1) were re-routed to the new WWTP and sampling at both of these location was discontinued. The only effluent going into aeration lagoon 1 is from the pilot lift station.

Sampling requirements for the new WWTP is per NMED Notice of Approval with Modifications for Western Refining's Process Design Report for Waste Water Treatment Plant Work Plan (Alternate Design) dated April 30, 2010 (Work Plan), Comment 17, System Startup Requirements.

In July of 2012 a new well was installed on the northwest corner of where the benzene stripper pad was located. This well was installed as a result of a site investigation at the aeration basin for SWMU 1 and SWMU-14 (Old API Separator) conducted by RPS. The site investigation included numerous soil and ground water sampling at the aeration basin to determine and evaluate the presence, nature, and extent of releases at this site. The site investigation was conducted by RPS and the well was developed by Enviro-Drill, Inc. The new well is identified as OAPIS-1. Well logs and analytical data are presented in Appendix F. On April 2, 2013, OAPIS-1 was surveyed by a professional surveyor for vertical and horizontal positions, ground level elevation, well casing rim elevation, corresponding measuring point description and current coordinate system. Survey is to be in accordance with Sections 500.1 through 500.12 of the

Regulations and Rules of the Board of Registration for Professional Engineers and Surveyors Minimum Standards for Surveying in New Mexico. A copy of the survey is included in Appendix F. OAPIS-1 has been added to the quarterly sampling schedule to begin in 2013.

A change to the sampling schedule for OW-50 and OW-52 was requested by Western to reduce the quarterly sampling to an annual event. Since its development in 2009, no BTEX or MTBE constituents have been detected in either of these wells. Metals detection has also been minimal with only trace levels detected. Only in November 2010 and March 2011, arsenic was detected at 3.1E-03 mg/L and 0.003 mg/L, and in November 2012, iron was detected at 1.3 mg/L which are all at levels above the current applicable standards. Annual sampling is to begin in 2013.

SECTION 7
CONCLUSIONS AND RECOMMENDATIONS

This section is an overview of the analytical water quality data collected to identify potential impacts to the ground water and determine if further monitoring is required.

7.1 EAST SIDE GROUND WATER

Ground water monitoring activities on the East side have shown that MTBE is present in all four well locations (OW-13, OW-14, OW-29, and OW-30) which are located on the northeast corner of the active refinery perimeter. In March of 2010 dedicated pumps were installed in all four wells to prevent possible cross contamination from sampling equipment and or field activities. Of the three wells OW-14 is the only well where three constituents (benzene, ethyl benzene and MTBE) have been consistently detected in the ground water samples collected since 2006. Benzene concentration levels have increased from 3.4E-03 mg/L in 2006 to fourth quarter 2012 of 2.7 mg/L. Ethyl benzene has also seen an increase beginning in 2006 at 2.5E-03 mg/L to fourth quarter 2012 of 0.056 mg/L. MTBE has also been on the incline from 2006 first reported at 0.016 mg/L to 2012 fourth quarter results of 1.4 mg/L. OW-14 is located down-gradient from two recovery wells RW-1 and RW-2. In this group of wells OW-29, which is located down-gradient (directly north) of OW-14, MTBE has been on a steady incline since its first detection in 2007 at 4.3E-03 mg/L to fourth quarter 2012 concentration levels of 0.47 mg/L. OW-30 which is also down-gradient from RW-1 and RW-2 and northeast of OW-14 has also shown a steady increase from its first detection in 2007 at 0.29 mg/L to fourth quarter 2012 results of 2.2 mg/L. No BTEX constituents have been detected in OW-13, OW-29 and OW-30. Only OW-13 in this group has detectable levels of MTBE at concentration levels below the NMED Tap Water standard of 0.125 mg/L. 2007 results indicate 1.3E-03 mg/L was detected and fourth quarter 2012 analytical results were detected at 0.011 mg/L indicating that the MTBE plume is slowly migrating in a north-west direction down-gradient from OW-14. The stratigraphic units in which these wells exist are in what is known as the Chinle/Alluvium Interface.

Also in the east section are wells OW-11 and OW-12, at a total depth of 65.79 feet and 128.85 feet. Both of these wells are located in the stratigraphic unit known as the Sonsela Sandstone. OW-12 is located south-west of OW-13 and OW-11 is located up-gradient, directly south of OW-12. Analytical data for OW-11 and OW-12 indicate no detectable BTEX or MTBE constituents from 2006 to 2012.

Two new wells (OW-50 and OW-52) were installed in October 2009 down gradient of OW-13, OW-14 and OW-29 to monitor possible migration of MTBE from these wells in a north-easterly direction. To date no detectable concentration levels of BTEX or MTBE constituents have been detected in these wells based on laboratory analysis.

Up-gradient of the OW wells, directly north of OW-14, are four shallow recovery wells (RW-1, RW-2, RW-5 and RW-6) from which SPH has been recovered and continues to be recovered. These wells are inspected on a quarterly basis and were added to the annual sampling schedule beginning in 2011. No product has been recovered from RW-2, as this well has shown no detectable product level and bailing is not required. RW-1 has had the most product recovery to date estimated to be 464.56 gallons from start year of 2005 through 2012. Starting in 2010 product recovery began to decline in this well. In 2012 it is estimated that less than 1 gallon of product was recovered from this well with the purging of 137 gallons of water total. RW-5 has also shown a decline in product recovery starting with year 2010 through 2012. Although there is no detectable product level, this well continues to be bailed as the water bailed has a slight odor and there is a visible sheen on the purged water. Total water bailed from this well for 2012 was 50 gallons with no measureable product thickness level. RW-6 has also showed a steady decline in product recovery beginning in 2009. In 2012 quarterly inspections revealed no measureable product level. This well does have a slight odor when plug is removed and the purged water continues to have a visible sheen when purged. Total water purged from this well for 2012 was 67 gallons with no measureable product level. RW-5 and RW-6 will continue to be bailed on a quarterly basis.

7.2 WEST SIDE MONITORING

The West side consists of ground water monitoring wells at the aeration basin and alongside a series of large evaporation ponds. At the aeration basin, there are four monitoring wells located around the NAPIS which were installed in 2007 and 2008 to address potential leaks of

hydrocarbons from the NAPIS. NAPIS-1 which is located on the east side (up-gradient) of the NAPIS has had no detectable concentration levels of BTEX or MTBE constituents from 2008 to 2012 and also no detectable concentration levels of any organic constituents. Immediately down gradient of the NAPIS on the west side, NAPIS-2, benzene, ethyl benzene and MTBE have been detected every year from 2008 through 2012 at concentration levels above the WQCC standards. The only organic constituent detected in this well are the following: 1-Methylnaphthalene in the third quarter 2009, second quarter 2010 and in 2011; naphthalene and 1,1-Dichloroethane and most recently in 2012 phenols were detected in the first and second quarter.

Also located at the NAPIS are three leak detection units which are inspected and if fluids are detected, samples are collected on a quarterly basis. All three leak detection units continue to have a fluid level. Analytical data results indicate detectable concentration levels of BTEX constituents for all three units beginning in 2008 to 2012. DRO continues to be detected in all three wells as well as the detection of several metals such as arsenic, chromium and manganese which are in all three units at concentration levels above the applicable standards. 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene have also been detected in all three units at concentration levels above the applicable standard. Quarterly analyses of fluid collected from these units and the continued presence of fluid indicate the potential that the fluid may be coming from the NAPIS.

At the aeration basin are three wells (GWM-1, GWM-2, GWM-3) which were installed in 2004 and 2005 to monitor aerations lagoons 1 and 2 and pond 1 for potential leaks. Analyses of ground water samples collected from GWM-1 have indicated detectable concentration levels for benzene, ethyl benzene and MTBE constituents since 2006 and would indicate the potential for historical releases from the aeration lagoons. GWM-2 and GWM-3 which is located on the northwest corner of EP-1 were installed in 2005 and no water was detected in each well. Water has been detected in GWM-2 in 2008 and continuously from 2010 through 2012 and in GWM-3 from 2010 through 2012. Analyses of ground water samples collected from both wells indicate no detectable concentration levels of BTEX constituents and MTBE has been detected at concentration levels below the NM Tap Water RSL standard.

The boundary wells (BW-1A, BW-1B, BW-1C, BW-2A, BW-2B, BW-2C, BW-3A, BW-3B, BW-3C) are located in the northwest section of the refinery along the west side of EP-7, EP-8, EP-11 and north of EP-12B. BW-1A, 1B and BW-3A did not have any water level during the annual inspection conducted in 2012. Analytical data from ground water sample analyses

indicate no detectable levels of BTEX or MTBE constituents in any of these wells from 2006 to 2012. In July 2009, the organic constituent bis (2-ethylhexyl) phthalate was detected in BW-3B; however subsequent analyses indicate no detectable levels. The same constituent was detected in BW-3C in 2011 and in 2012 analytical data results were non-detect. The detection of this organic constituent may have been from field handling and/or laboratory contamination. All of the boundary wells with water levels did indicate elevated fluoride levels from 2006 through 2012 and minimal detection of metals.

The MW (MW-1, MW-2, MW-4, and MW-5) series of wells are located around the RCRA LTU and are developed in the Sonsela stratigraphic unit. MW-4 is located directly north of EP-3. No detectable concentration levels of BTEX and MTBE constituents were found from the ground water samples collected at these locations. Arsenic is the only metal that has been detected in all four wells throughout 2007 to 2010. In 2008, bis (2-ethylhexyl) phthalate was detected in the ground water sampled collected from this well at a concentration level of 6.79E-03 mg/L. Subsequent ground water sampling has indicated no detectable levels of this particular constituent. The detection of this particular constituent is suspect and ground water sample may have been contaminated by sampler or at the laboratory.. These wells are also monitored under the RCRA Post Closure Permit on a 10-year cycle. The first cycle was completed in 2009.

The SMW (SMW-2, SMW-4) wells are also located around the RCRA land treatment unit and are developed in the Chinle/Alluvium Interface stratigraphic unit. These wells are also monitored under the RCRA Post Closure Permit on a 10-year cycle. The first cycle was completed in 2009. No detectable concentration levels of BTEX and MTBE constituents were found from the ground water samples collected at these locations from 2006 through 2012. MTBE was detected in SMW-2 in years 2008, 2010, 2011 and 2012 at concentration levels below the applicable standard. SMW-2 had elevated chloride and sulfate levels and SMW-4 had slightly elevated fluoride levels. Arsenic, chromium, and uranium were detected at concentration levels above the applicable standards in both wells.

7.3 ADDITIONAL MONITORING

On February 15, 2012, NMED OCD division rescinded the current OCD Ground Water Discharge Permit GW-032 and replaced with abatement #AP-111. Due to existing ground water contamination, OCD is requiring Western to continue to abate pollution of ground water pursuant

to 19.15.30 NMAC (REMEDIATION). Western will continue to monitor the following some of which were requirements for the OCD Ground Water Discharge Permit GW-032.

- Continue to monitor the aeration lagoons, ponds and outfalls between the lagoons and ponds on a quarterly and semi-annual basis.
- Summary of all EPA/NMED/RCRA Activity
- Summary of all Leaks, Spills and Releases
- Perimeter Inspections
- Temporary Land Farm Monitoring
- Monthly Flow Rate to NAPIS
- Follow most current sample schedule for start up of new WWTP requirements.

7.4 RECOMMENDATIONS

- Continue with the sampling requirements of the most current approved Facility Wide Ground Water Monitoring Work Plan.
- Submit the 2012 Annual Ground Water Monitoring Report on or before September 1, 2012.
- Submit recommendations to change or modify sampling requirements as needed.

8.3.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)
Dissolved Metals Analytical Result Summary

			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**0.071**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
East LDU	11/28/2012	200.7/200.8	**0.01**	0.51	<0.002	**0.69**	<0.006	0.055	<0.005	**1.0**	0.015	<0.005	<0.02	0.025
	8/21/2012	200.7/200.8	**6.2E-03**	0.62	<0.002	**0.46**	<0.006	0.044	<0.005	**1.2**	<0.05	<0.005	<0.001	<0.01
	6/12/2012	200.7/200.8	**5.1E-03**	0.59	<0.002	**0.28**	<0.006	0.062	<0.005	**1.1**	9.2E-03	<0.005	<0.005	0.011
	3/20/2012	200.7/200.8	<0.005	0.42	<0.002	**0.11**	<0.006	0.9	<0.005	**0.6**	<0.005	<0.005	<0.005	0.035
	12/14/2011	200.7/200.8	**3.5E-03**	0.31	<0.002	**0.12**	<0.006	0.21	<0.005	**0.39**	1.8E-03	<0.005	<0.001	<0.01
	9/26/2011	200.7/200.8	**3.6E-03**	0.58	<0.002	**0.11**	<0.006	0.057	<0.005	**0.55**	1.9E-03	<0.005	<0.001	0.026
	6/15/2011	200.7/200.8	**0.016**	0.11	<0.01	**0.11**	<0.03	**1.2**	<0.025	**1.2**	0.037	<0.025	<0.01	<0.05
	3/3/2011	200.7/200.8	<0.005	0.48	<0.002	0.034	<0.006	0.11	<0.005	**0.38**	<0.05	<0.005	<0.005	<0.01
	11/11/2010	6010B	<0.02	0.33	<0.002	0.046	<0.006	0.16	<0.005	**0.59**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.31	<0.002	0.033	<0.006	0.14	<0.005	**0.73**	<0.05	<0.005	<0.005	<0.05
	3/18/2010	6010B	<0.04	0.21	<0.004	**0.22**	<0.012	0.86	<0.01	**2.0**	<0.1	<0.01	<0.001	<0.1
West LDU	11/28/2012	200.7/200.8	<0.005	0.16	<0.002	**0.071**	<0.006	0.38	<0.005	**0.55**	0.013	<0.005	<0.05	0.04
	8/21/2012	200.7/200.8	**0.002**	0.38	<0.002	0.032	<0.006	0.15	<0.005	**0.21**	<0.05	<0.005	<0.001	0.014
	6/12/2012	200.7/200.8	<0.005	0.35	<0.002	0.019	<0.006	0.09	<0.005	**0.2**	7.5E-03	<0.005	<0.005	<0.01
	3/20/2012	200.7/200.8	**1.8E-03**	0.21	<0.002	0.013	<0.006	0.61	<0.005	**0.22**	3.8E-03	<0.005	<0.001	0.02
	12/14/2011	200.7/200.8	**7.1E-03**	0.3	<0.002	**0.066**	<0.006	**1.3**	<0.005	**0.31**	<0.005	<0.005	<0.005	0.04
	9/26/2011	200.7/200.8	**4.4E-03**	0.21	NL	**0.067**	<0.006	0.14	<0.005	**0.86**	7.5E-03	<0.005	<0.001	0.013
	6/15/2011	200.7/200.8	**0.013**	0.61	<0.01	**0.091**	<0.03	0.33	<0.025	**1.1**	0.031	<0.025	<0.005	<0.05
	3/3/2011	200.7/200.8	<0.005	0.46	<0.002	**0.077**	<0.006	**2.1**	<0.005	**1.3**	<0.05	<0.005	<0.005	0.012
	11/11/2010	6010B	<0.02	0.56	<0.002	**0.18**	<0.006	0.22	<0.005	**0.81**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.25	<0.002	**0.062**	<0.006	0.12	<0.005	**0.81**	<0.05	<0.005	<0.005	<0.05
	3/18/2010	6010B	<01	0.16	<0.01	**2.3**	<0.03	**3.2**	<0.025	**2.9**	<0.25	<0.025	<0.001	<0.25
Oil Sump LDU	11/28/2012	200.7/200.8	**0.014**	0.32	<0.002	**0.08**	<0.006	0.37	<0.005	**1.1**	0.013	<0.005	<0.02	0.06
	8/21/2012	200.7/200.8	**0.011**	0.4	<0.002	**0.061**	<0.006	0.19	<0.005	**1.1**	<0.05	<0.005	<0.001	0.015
	6/12/2012	200.7/200.8	**9.5E-03**	0.35	<0.002	0.046	<0.006	0.51	<0.005	**0.83**	0.012	<0.005	<0.005	0.016
	3/20/2012	200.7/200.8	**0.007**	0.23	<0.002	0.047	<0.006	0.33	<0.005	**0.79**	0.02	<0.005	<0.005	0.024
	12/14/2011	200.7/200.8	**6.2E-03**	0.23	<0.002	0.03	<0.006	0.28	<0.005	**0.35**	0.011	<0.005	<0.001	0.015
	9/26/2011	200.7/200.8	**6.2E-03**	0.24	<0.002	**0.058**	<0.006	0.1	<0.005	**0.53**	0.011	<0.005	<0.001	0.015
	6/15/2011	200.7/200.8	**4.8E-03**	0.46	<0.01	0.033	<0.03	<0.1	<0.025	**0.33**	4.1E-03	<0.025	<0.002	<0.05
	3/3/2011	200.7/200.8	<0.005	0.049	<0.002	**0.054**	<0.006	**2.4**	<0.005	**0.75**	**0.071**	<0.005	<0.005	0.01
	11/10/2010	6010B	<0.02	0.19	<0.002	0.037	<0.006	0.15	7.5E-03	**1.2**	<0.05	<0.005	<0.001	<0.05
	9/20/2010	6010B	<0.02	0.32	<0.002	0.03	<0.006	0.12	5.6E-03	**1.1**	<0.05	<0.005	<0.025	<0.05

8.3.2 LEAK DETECTION UNITS (East LDU, West LDU, Oil Sump LDU)
Dissolved Metals Analytical Result Summary

	Parameters											
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.2	0.05	0.05	0.03	10.0
40 CFR 141.62 MCL (APR 2013)	0.01	2.0	NE	NE	1.3	NE	0.015	NE	0.05	NE	0.03	NE
EPA RSL for Tap Water (NOV 2012)	4.5E-05	2.9	NE	1.6	0.62	11	NE	NE	0.078	0.071	0.047	4.7
SAMPLE ID / DATE SAMPLED / METHOD												

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

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

NOTES

SECTION 8

Data Tables

SECTION 8

DATA TABLES

8.1 Effluents
8.2 Influents
8.3 Leak Detection Units
8.4 OW-1, OW-10
8.5 OW-13, OW-14, OW-29, OW-39
8.6 OW-50, OW-52
8.7 GWM-1, GWM-2, GWM-3
8.8 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
8.9 BW to EP-2
8.10 Evaporation Ponds
8.11 BW Wells
8.12 EP-2 Inlet
8.13 MW Wells
8.14 OW-11, OW-12
8.15 SMW-2, SMW-4
8.16 PW-2, PW-3, PW-4
8.17 RW-1, RW-2, RW-5, RW-6

8.1 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
AL-2 to EP-1	11/28/2012	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/21/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	12/14/2011	8260B	<0.005	<0.005	<0.005	8.7E-03	<0.005
	9/28/2011	8260B	6.1E-03	0.013	<0.005	<0.0075	<0.005
	6/15/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	3/8/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/13/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/8/2010	8260B	<0.01	<0.01	<0.01	<0.0015	<0.01
	3/9/2010	8260B	<0.005	0.011	<0.005	0.013	<0.005
	11/10/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/19/2009	8260B	<0.005	4.4E-03	1.4E-03	0.011	<0.005
	5/26/2009	8260B	<0.005	<0.005	<0.005	7.3E-03	<0.005
	3/31/2009	8260B	<0.005	<0.005	<0.005	0.03	<0.005
	12/2/2008	8260B	0.012	0.085	0.028	0.021	<0.005
	9/9/2008	8260B	<0.02	<0.02	<0.02	<0.03	<0.02
	6/17/2008	8260B	<0.005	<0.005	<0.005	<0.005	<0.005
	3/10/2008	8260B	0.19	0.46	0.099	0.68	<0.01
Pilot Effluent	12/5/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
	8/21/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	12/14/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/28/2011	8260B	<0.005	8.4E-03	<0.005	<0.0075	<0.005
	6/16/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	3/9/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	6/28/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	11/10/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/19/2009	8260B	<0.005	3.8E-03	<0.005	<0.0075	<0.005
	5/27/2009	8260B	<0.005	4.5E-03	<0.005	<0.0075	<0.005
	3/31/2009	8260B	<0.005	6.8E-03	<0.005	<0.0075	<0.005
	12/2/2008	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/9/2008	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/17/2008	8260B	<0.001	6.2E-03	<0.001	<0.0015	<0.001
	3/11/2008	8260B	<0.001	1.5E-03	<0.001	<0.0015	<0.00

8.1 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
NAPIS Effluent[2]	6/12/2012	8260B	**8.9**	**14**	**1.4**	**8.4**	<0.1
	3/21/2012	8260B	**11**	**20**	**1.3**	**7.8**	<0.1
	12/14/2011	8260B	**19**	**20**	**1.4**	**8.9**	<0.1
	9/28/2011	8260B	**17**	**31**	**2.1**	**0.3**	<0.1
	6/15/2011	8260B	**8.9**	**21**	**2.0**	**12**	<0.1
	3/8/2011	8260B	**8.1**	**13**	**0.89**	**5.2**	<0.1
	11/3/2010	8260B	**4.2**	**12**	**1.5**	**8.4**	<0.1
	9/13/2010	8260B	**12**	**30**	**2.8**	**17**	<0.1
	6/8/2010	8260B	**1.5**	**6.0**	**0.67**	**3.8**	<0.05
	3/9/2010	8260B	**13**	**26**	**2.7**	**14**	<0.05
	11/10/2009	8260B	**5.9**	**16**	**1.6**	**9.4**	<0.05
	8/19/2009	8260B	**2.6**	**7.1**	**0.71**	**4.2**	<0.05
	5/26/2009	8260B	**4.1**	**14**	**1.6**	**10**	<0.05
	3/31/2009	8260B	**2.6**	**7.4**	**0.54**	**3.5**	<0.05
	12/2/2008	8260B	**1.4**	**3.3**	**0.36**	**1.9**	<0.05
	9/9/2008	8260B	**0.36**	0.39	**0.028**	**0.2**	<0.05
	6/17/2008	8260B	**0.84**	**1.5**	**0.14**	**0.89**	<0.1
	3/10/2008	8260B	**0.47**	0.73	**0.15**	**0.97**	<0.05

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1) NMED Tap Water (JUN 2012)

NOTES
2. *No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).*

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

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [3] (mg/L)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 to 8.6[1]	NE	0.2[2]	NE	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD												
AL-2 to EP-1	11/28/2012	300.0/8015B	4.5	380	<0.5	<0.5	<0.5	<2.5	740	NA	NA	7.8	<0.25	<5.0
	8/21/2012	300.0/8015B	8.0	490	<0.5	<0.5	<0.5	<2.5	960	NA	NA	2.8	<0.5	<5.0
	6/12/2012	300.0/8015B	58	950	1.6	<1.0	<1.0	<5.0	1200	NA	NA	9.0	<0.5	<5.0
	3/20/2012	300.0/8015B	57	2200	5.0	1.2	<1.0	<5.0	780	NA	NA	15	<0.5	<5.0
	12/14/2011	300.0/8015B	41	2900	2.5	10	10	<5.0	890	NA	NA	9.8	0.3	
	9/28/2011	300.0/8015B	30	3100	1.5	63	63	<5.0	1600	NA	NA	23	1.1	
	6/15/2011	300.0/8015B	150	250	<2.0	<1.0	1.9	<5.0	1200	NA	NA	10	1.7	
	3/8/2011	300.0/8015B	280	320	1.4	<4.0	<4.0	<2.5	920	NA	NA	9.9	0.3	
	11/3/2010	300.0/8015B	77	230	NL	<2.0	4	<10	880	NA	NA	98	0.36	
	9/13/2010	300.0/8015B	60	240	NL	1.2	<1.0	<10	1300	NA	NA	9.1	0.51	
	6/8/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	66	0.56	
	3/9/2010	300.0/8015B	130	280	1.6	7.4	7.4	<5.0	870	NA	NA	190	<1.0	
	11/10/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	49	0.48	
	8/19/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	41	<5.0	
	5/26/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	12	0.15	
	3/31/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	76	0.63	
	12/2/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	160	<5.0	
	9/9/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	44	<5.0	
	6/17/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	140	1.4	
	3/10/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	24	1.7	
Pilot Effluent	12/5/2012	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	NL
	8/21/2012	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.5	<0.5	<5.0
	6/12/2012	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.6	<0.5	5.1
	3/20/2012	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.7	<0.5	<5.0
	12/14/2011	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.8	<0.25	
	9/28/2011	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.3	<0.25	
	6/16/2011	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.4	<0.05	
	3/9/2011	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.0	<0.25	
	11/3/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	15	0.065	
	9/16/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.3	<0.05	
	6/28/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	19	<0.25	
	3/10/2010	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	28	<0.25	
	11/10/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.3	<0.25	
	8/19/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	<0.5	

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

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [3] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**	**0.2[2]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
Pilot Effluent	5/27/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.8**	<0.05	
	3/31/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**9.0**	<0.25	
	12/2/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**10**	<0.5	
	9/9/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**6.3**	<1.0	
	6/17/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**5.4**	0.078	
	3/10/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	**12**	<0.05	
NAPIS Effluent[4]	6/12/2012	300.0/8015B	**46**	**430**	1.5	<1.0	<1.0	<5.0	**960**	8.4	4300	**98**	130	8.4
	3/21/2012	300.0/8015B	**220**	**700**	4.6	<1.0	2.1	<5.0	470	**8.9**	5100	**23**	120	<5.0
	12/14/2011	300.0/8015B	**94**	**880**	3.3	**18**	**18**	<5.0	**790**	**9.4**	6000	**140**	150	
	9/28/2011	300.0/8015B	**13**	**900**	<2.0	**110**	**110**	<10	**1300**	**9.57**	6200	**9.9**	150	
	6/15/2011	300.0/8015B	**57**	**280**	<2.0	**5.0**	**10**	<10	**1200**	**9.09**	4700	**13**	99	
	3/8/2011	300.0/8015B	**160**	**360**	2.6	<1.0	<1.0	<2.5	**920**	6.95	5800	**23**	71	
	11/3/2010	300.0/8015B	**410**	240	NL	<2.0	**11**	<10	**820**	NA	NA	**68**	62	
	9/13/2010	300.0/8015B	**20**	**260**	NL	<2.0	6.3	<10	**1300**	NA	3600	**39**	150	
	6/8/2010	300.0/8015B	**37**	230	1.6	**4.2**	4.2	<5.0	**880**	**9.04**	3600	**150**	58	
	3/9/2010	300.0/8015B	**43**	**290**	1.1	**5.5**	5.5	<2.5	**610**	NA	NA	**99**	120	
	11/10/2009	300.0/8015B	**86**	**460**	5.4		<	**36**	450	**8.9**	3600	**130**	84	
	8/19/2009	300.0/8015B	**31**	170	NL	**13**	**13**	<2.5	**1100**	**9.21**	4000	**31**	37	
	5/26/2009	300.0/8015B	**73**	120	NL	**3.1**	3.1	**2.5**	**620**	8.29	2600	**110**	61	
	3/31/2009	300.0/8015B	**20**	140	NL	**3.1**	3.1	<2.5	350	**9.12**	2300	**880**	48	
	12/2/2008	300.0/8015B	**12**	160	NL	<1.0	1.2	<5.0	510	**8.63**	2200	**68**	20	
	9/9/2008	300.0/8015B	**11**	78	NL	0.8	1.8	**14**	440	**9.44**	3300	**35**	<10	
	6/17/2008	300.0/8015B	**19**	93	NL	<1.0	3.4	**37**	**630**	**9.07**	4600	**44**	11	
	3/10/2008	300.0/8015B	**69**	**480**	NL	<5.0	<5.0	<25	**570**	**9.14**	2800	**290**	11	

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
1) 20NMAC 6.2.2101 General Requirements
2) NMED Table 6-2 (Unknown Oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (JUN 2012)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
3) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.
4) No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).

8.1.2 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
BOD/COD Analytical Result Summary

			Parameters	
			BOD (mg/L)	COD (mg/L)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]
SAMPLE ID	DATE SAMPLED	METHOD		
Pilot Effluent	12/5/2012	SM5210B/410.4	180	340
	8/21/2012	SM5210B/410.4	300	650
	6/12/2012	SM5210B/410.4	270	690
	3/20/2012	SM5210B/410.4	130	350
	12/14/2011	SM5210B/410.4	260	673
	9/29/2011	SM5210B/410.4	360	378
	6/16/2011	SM5210B/410.4	370	638
	3/9/2011	SM5210B/410.4	590	870
	11/3/2010	SM5210B/410.4	270	900
	9/20/2010	SM5210B/410.4	420	1500
	6/28/2010	SM5210B/410.4	400	462
	3/10/2010	SM5210B/410.4	196	455
	11/10/2009	SM5210B/410.4	NA	410
	8/19/2009	SM5210B/410.4	905	712
	5/27/2009	SM5210B/410.4	442	431
	3/31/2009	SM5210B/410.4	1519	422
	12/2/2008	SM5210B/410.4	642	336
	9/9/2008	SM5210B/410.4	375	795
	6/17/2008	SM5210B/410.4	399	699
	3/11/2008	SM5210B/410.4	618	824

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

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

NOTES:

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

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.005**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
AL-2 to EP-1	11/28/2012	200.7/200.8	**4.5E-03**	0.024	<0.002	<0.006	<0.006	0.37	<0.005	0.068	<0.0025	<0.005	<0.0002	<0.0025	0.023
	8/21/2012	200.7/200.8	**0.005**	0.036	<0.002	<0.006	8.6E-03	0.4	<0.005	0.061	5.7E-03	<0.005	<0.0002	<0.0025	0.066
	6/12/2012	200.7/200.8	**8.8E-03**	<0.002	<0.002	<0.006	<0.006	<0.02	<0.005	<0.002	0.025	<0.005	**2.5E-03**	<0.0025	<0.01
	3/20/2012	200.7/200.8	**0.02**	0.29	<0.002	0.021	0.026	**12**	<0.005	**0.3**	0.021	<0.005	**4.6E-03**	4.9E-03	0.35
	12/14/2011	200.7/200.8	**0.017**	0.19	<0.002	0.019	0.028	**13**	<0.005	0.14	0.01	<0.005	**0.02**	6.7E-03	0.24
	9/28/2011	200.7/200.8	**0.01**	0.099	<0.002	0.014	0.028	**6.1**	<0.005	0.079	0.02	<0.005	**2.4E-03**	<0.005	0.25
	6/15/2011	200.7/200.8	**0.017**	0.09	<0.002	0.027	0.017	**13**	<0.005	**0.22**	0.019	<0.005	**1.1E-03**	<0.0025	0.59
	3/8/2011	200.7/200.8	**0.013**	0.055	<0.002	0.025	7.7E-03	**5.7**	<0.005	**0.2**	<0.05	<0.005	2.9E-04	<0.0025	0.18
	11/3/2010	6010B	<0.02	0.077	<0.002	0.02	8.6E-03	**11**	<0.005	0.14	<0.05	<0.005	4.6E-04	NL	0.55
	9/13/2010	6010B	<0.02	0.18	<0.002	**0.84**	0.023	**11**	<0.005	**0.247**	<0.05	<0.005	**1.1E-03**	0.001	0.63
	6/8/2010	6010B	**0.023**	0.17	<0.002	0.014	0.025	**1.6**	0.0063	0.15	<0.05	<0.005	**8.2E-04**	NL	0.33
	3/9/2010	6020A	**9.6E-03**	9.68E-02	<0.001	3.92E-02	3.74E-02	**19.6**	9.7E-03	**0.476**	1.5E-02	<0.001	4.8E-04	1.67E-03	0.584
	11/10/2009	6010B	<0.1	0.056	<0.01	<0.03	<0.03	**1.9**	<0.025	0.12	<0.25	<0.025	2.9E-04	NL	0.11
	8/21/2009	6010B	<0.1	0.055	<0.01	<0.03	<0.03	**1.0**	<0.025	0.093	<0.25	<0.025	4.9E-04	0.002	0.3
	5/26/2009	6010B	<0.02	0.08	<0.002	<0.006	<0.006	**5.7**	7.3E-03	0.019	<0.05	<0.025	<0.0002	<0.001	0.59
	3/31/2009	6010B	**0.024**	0.099	<0.002	0.016	NL	NL	6.4E-03	NL	<0.05	<0.005	<0.0002	NL	NL
	12/2/2008	6010B	<0.02	0.2	<0.005	<0.01	<0.02	**6.8**	<0.005	**0.4**	0.034	<0.01	4.8E-04	NL	0.59
	9/9/2008	6010B	<0.02	0.069	<0.002	7.2E-03	<0.006	**2.5**	<0.005	0.13	<0.05	<0.005	<0.0002	<0.001	0.19
	6/17/2008	6010B	<0.02	0.14	<0.002	0.013	0.015	**9.0**	<0.005	0.13	<0.05	<0.005	**7.6E-04**	NL	1.6
	3/10/2008	6010B	<0.02	0.017	<0.002	**0.1**	<0.006	**11**	<0.005	**1.4**	<0.05	<0.005	<0.0002	**1.9**	1.9
Pilot Effluent	12/5/2012	200.7/200.8	**2.7E-03**	0.018	<0.002	<0.006	0.031	0.23	<0.005	0.031	<0.0025	<0.005	<0.0002	<0.0025	0.071
	8/21/2012	200.7/200.8	**3.5E-03**	0.023	<0.002	0.02	0.075	0.67	<0.005	0.041	<0.0025	<0.005	<0.0002	<0.0025	0.23
	6/12/2012	200.7/200.8	**2.7E-03**	0.018	<0.002	<0.006	0.062	0.52	0.006	0.046	<0.0025	<0.005	<0.0002	<0.0025	0.12
	3/20/2012	200.7/200.8	**6.1E-03**	0.022	<0.002	0.045	0.08	**1.1**	<0.005	0.035	5.7E-03	<0.005	<0.0002	<0.0025	0.092
	12/14/2011	200.7/200.8	**0.003**	0.026	<0.002	0.023	0.043	0.87	<0.005	0.061	<0.0025	<0.005	<0.0002	<0.0025	0.18
	9/28/2011	200.7/200.8	**2.9E-03**	0.024	<0.002	0.017	0.063	**1.5**	<0.005	0.12	<0.0025	<0.005	<0.0002	<0.0025	0.12
	6/16/2011	200.7/200.8	**2.8E-03**	0.19	<0.002	0.006	0.048	0.43	<0.005	0.052	2.8E-03	<0.005	<0.0002	<0.0025	0.12
	3/9/2011	200.7/200.8	**3.6E-03**	0.27	<0.002	<0.006	0.13	0.73	<0.005	0.063	<0.05	<0.005	<0.0002	<0.0025	0.21
	11/3/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.091	0.64	<0.005	0.055	<0.05	<0.005	<0.0002	NL	0.18
	6/16/2010	6010B	<0.02	<0.1	<0.01	<0.03	<0.03	**3.2**	<0.025	0.14	<0.25	<0.025	<0.0002	0.005	0.69
	6/28/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.055	0.49	<0.005	0.058	<0.05	<0.005	<0.0002	0.001	0.12
	3/10/2010	6010B	<0.02	<0.02	<0.002	<0.006	0.061	0.56	<0.005	0.049	<0.05	<0.005	<0.0002	1.3E-03	0.14
	11/10/2009	6010B	<0.04	0.023	<0.004	<0.012	0.047	0.28	<0.01	0.041	<0.1	<0.01	<0.0002	NL	0.058

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

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.005**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
Pilot Effluent	8/19/2009	6010B	<0.02	<0.05	<0.01	<0.03	0.063	0.44	<0.025	0.079	<0.25	<0.025	<0.0002	0.001	0.15
	5/27/2009	6010B	<0.02	<0.01	<0.002	<0.006	0.034	0.33	<0.005	0.048	<0.05	<0.005	<0.0002	<0.001	0.046
	3/31/2009	6010B	<0.02	0.033	<0.002	<0.006	0.031	0.72	<0.005	0.12	<0.05	<0.005	<0.0002	0.001	0.098
	12/2/2008	6010B	<0.02	0.021	<0.005	0.01	0.4	0.36	<0.005	0.086	<0.02	<0.01	<0.0002	NL	0.068
	9/9/2008	6010B	<0.02	0.017	<0.002	<0.006	0.21	0.49	<0.005	0.085	<0.05	<0.005	<0.0002	<0.001	0.057
	3/10/2008	6010B	<0.02	0.022	<0.002	<0.006	0.018	0.35	<0.005	0.092	<0.5	<0.005	<0.0002	<0.1	0.055
NAPIS Effluent[1]	6/12/2012	200.7/200.8	**7.3E-03**	0.28	<0.002	0.012	0.036	**11**	7.8E-03	0.14	6.9E-03	<0.005	**4.6E-03**	<0.0025	0.49
	3/21/2012	200.7/200.8	**0.013**	0.01	<0.002	7.7E-03	0.006	**3.3**	<0.005	0.17	0.016	<0.005	**1.7E-03**	<0.0025	0.047
	12/14/2011	200.7/200.8	**0.012**	0.24	<0.002	0.02	0.037	**19**	<0.005	**0.21**	0.01	<0.005	**9.9E-03**	5.2E-03	0.3
	9/28/2011	200.7/200.8	**9.1E-03**	0.056	<0.002	8.1E-03	0.03	**4.1**	<0.005	0.072	8.1E-03	<0.005	**3.5E-03**	<0.0025	0.22
	6/15/2011	200.7/200.8	**0.013**	0.066	<0.002	0.035	7.6E-03	**41**	<0.005	**0.29**	0.014	<0.005	**7.5E-04**	2.9E-03	0.91
	3/8/2011	200.7/200.8	**0.012**	0.12	<0.002	0.026	<0.006	**8.9**	<0.005	**0.21**	<0.05	<0.005	5.4E-04	<0.0025	0.4
	11/3/2010	6010B	<0.1	<0.1	<0.01	<0.03	<0.03	**13**	<0.025	0.16	<0.25	<0.025	6.0E-04	NL	0.32
	9/13/2010	6010B	<0.02	0.12	<0.002	0.16	0.014	**9.8**	<0.005	0.15	<0.05	<0.005	4.1E-04	0.002	1.2
	6/8/2010	6010B	<0.02	0.072	<0.002	6.7E-03	0.012	**7.8**	<0.005	0.1	<0.05	<0.005	1.4E-03	NL	0.11
	3/10/2010	6020A	**6.22E-03**	9.26E-02	<0.001	3.72E-02	2.23E-02	**11.1**	4.1E-03	**1.67**	1.55E-02	<0.001	**8.6E-04**	1.1E-03	0.206
	11/10/2009	6010B	<0.1	0.77	<0.01	0.035	0.053	**19**	**0.029**	0.15	<0.25	<0.025	5.5E-04	NL	0.47
	8/19/2009	6010B	<0.01	<0.05	<0.01	<0.03	<0.03	**13**	<0.025	0.06	<0.25	<0.025	<0.0002	0.002	0.16
	5/26/2009	6010B	<0.02	0.09	<0.002	0.011	0.023	**4.1**	6.3E-03	0.17	<0.05	<0.005	**0.009**	<0.001	0.34
	3/31/2009	6010B	<0.02	0.069	<0.002	<0.006	0.054	**1.7**	<0.005	0.056	<0.05	<0.005	3.0E-04	<0.001	0.26
	12/2/2008	6010B	<0.02	0.11	<0.005	<0.01	<0.02	**1.8**	<0.005	0.17	<0.02	<0.01	2.6E-04	<0.001	0.23
	9/19/2008	6010B	<0.02	0.062	<0.002	<0.006	<0006	0.076	<0.005	0.057	**0.052**	<0.005	<0.0002	<0.001	<0.02
	6/17/2008	6010B	<0.02	0.081	<0.002	<0.006	<0.006	**1.1**	<0.005	0.057	<0.05	<0.005	<0.0002	<0.1	0.19
	3/10/2008	6010B	<0.02	0.32	<0.002	0.019	0.053	**10**	**0.013**	**0.2**	<0.5	<0.005	<0.0002	<0.1	1.3

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

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

NOTES
1) No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).

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

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
AL-2 to EP-1	11/28/2012	200.7/200.8	**4.4E-03**	0.025	<0.002	220	<0.006	<0.006	0.32	<0.005	62	0.071	21	0.002	<0.005	280	<0.005	0.024
	8/21/2012	200.7/200.8	**4.1E-03**	0.029	<0.002	250	<0.006	<0.006	0.13	<0.005	61	0.044	30	2.4E-03	<0.005	430	<0.001	0.067
	6/12/2012	200.7/200.8	**0.013**	0.053	<0.002	130	<0.006	<0.006	**2.8**	5.1E-03	44	**0.28**	150	0.022	<0.005	1500	2.6E-03	0.088
	3/20/2012	200.7/200.8	**3.7E-03**	0.014	<0.002	NL	8.1E-03	0.01	0.16	<0.005	NL	0.027	NL	5.3E-03	<0.005	NL	1.3E-03	0.033
	12/14/2011	200.7/200.8	**6.4E-03**	0.023	<0.002	41	0.011	<0.006	**1.2**	<0.005	37	0.01	42	7.9E-03	<0.005	2600	4.5E-03	0.023
	9/28/2011	200.7/200.8	**8.6E-03**	0.017	<0.002	78	<0.006	<0.006	**1.3**	<0.005	120	0.049	920	0.018	0.005	2100	<0.005	0.053
	6/15/2011	200.7/200.8	**0.015**	0.049	<0.01	44	<0.03	<0.03	**12**	<0.025	17	**0.22**	100	0.024	<0.025	1100	<0.005	0.43
	3/8/2011	200.7/200.8	**0.008**	0.027	<0.002	25	0.021	0.01	**5.4**	<0.005	12	**0.2**	50	<0.05	<0.005	740	<0.005	0.1
	11/3/2010	6010B	<0.02	0.035	<0.002	31	6.6E-03	<0.006	**2.6**	<0.005	11	0.13	36	<0.05	<0.005	630	NL	NL
	9/13/2010	6010B	<0.02	0.042	<0.002	37	**0.08**	<0.006	**1.6**	<0.005	14	**0.2**	25	<0.05	<0.005	730	<0.001	NL
	6/8/2010	6010B	<0.02	0.037	<0.002	40	8.9E-03	6.8E-03	**6.5**	<0.005	13	0.13	13	<0.05	<0.005	850	<0.001	0.064
	3/9/2010	6010B	**6.7E-03**	3.05E-02	<0.001	35.3	1.88E-02	7.28E-03	**12.1**	3.77E-03	10.7	**0.456**	58.2	9.77E-03	NL	678	<0.001	0.34
Pilot Effluent	12/5/2012	200.7/200.8	**1.1E-03**	0.018	<0.002	NL	<0.006	0.014	0.18	<0.005	NL	0.03	NL	1.9E-03	<0.005	NL	1.4E-03	0.058
	8/21/2012	200.7/200.8	**1.2E-03**	0.018	<0.002	NL	6.6E-03	<0.006	0.25	<0.005	NL	0.034	NL	1.4E-03	<0.005	NL	<0.001	0.089
	6/12/2012	200.7/200.8	<0.005	0.015	<0.002	NL	<0.006	<0.006	0.24	<0.005	NL	0.043	NL	<0.005	<0.005	NL	<0.005	0.096
	3/20/2012	200.7/200.8	**3.7E-03**	0.014	<0.002	NL	8.1E-03	0.01	0.16	<0.005	NL	0.027	NL	5.3E-03	<0.005	NL	1.3E-03	0.033
	12/14/2011	200.7/200.8	**1.3E-03**	0.011	<0.002	210	<0.006	<0.006	<0.02	<0.005	46	0.049	31	1.2E-03	<0.005	220	1.4E-03	0.013
	9/28/2011	200.7/200.8	**1.5E-03**	0.015	<0.002	NL	<0.006	<0.006	0.068	<0.005	NL	0.11	NL	2.9E-03	<0.005	NL	<0.001	0.014
	6/16/2011	200.7/200.8	<0.005	0.015	<0.010	200	<0.03	<0.03	0.11	<0.025	50	0.043	21	6.9E-03	<0.025	150	<0.005	<0.05
	3/9/2011	200.7/200.8	<0.002	0.19	<0.002	250	<0.006	0.19	0.22	<0.005	52	0.052	17	<0.05	<0.005	220	<0.005	0.05
	11/3/2010	6010B	<0.1	<0.1	<0.01	130	<0.03	<0.03	<0.1	<0.025	31	0.052	21	<0.25	<0.025	250	NL	NL
	9/16/2010	6010B	<0.02	0.022	<0.002	140	<0.006	<0.006	0.3	<0.005	30	0.057	18	<0.05	<0.005	240	0.001	NL
	6/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.097	<0.005	NL	0.068	NL	<0.05	<0.005	NL	NL	NL
	3/10/2010	6020A	<0.02	<0.02	<0.002	NL	<0.006	9.5E-03	0.13	<0.005	NL	0.039	NL	<0.05	<0.005	NL	<0.001	<0.05
NAPIS Effluent[1]	6/12/2012	200.7/200.8	<0.005	0.071	<0.002	83	8.4E-03	<0.006	**3.3**	<0.005	22	0.12	57	0.015	<0.005	630	<0.005	0.17
	3/21/2012	200.7/200.8	**6.3E-03**	0.037	<0.002	40	<0.006	<0.006	0.5	<0.005	15	0.17	160	**0.051**	<0.005	790	<0.001	0.024
	12/14/2011	200.7/200.8	**3.4E-03**	0.073	<0.002	84	0.017	<0.006	**12**	<0.005	22	0.19	42	9.6E-03	<0.005	1200	4.5E-03	0.13
	9/28/2011	200.7/200.8	**6.6E-03**	0.018	<0.002	34	<0.006	<0.006	0.58	<0.005	27	0.053	350	0.013	<0.005	1300	<0.005	0.019
	6/15/2011	200.7/200.8	<0.1	0.058	<0.01	61	0.032	<0.03	**32**	<0.025	17	**0.29**	37	0.017	<0.025	850	<0.01	0.76
	3/8/2011	200.7/200.8	<0.002	0.062	<0.002	44	0.024	<0.006	**5.9**	<0.005	12	**0.21**	35	**0.082**	<0.005	660	<0.005	0.2
	11/3/2010	6010B	<0.02	0.028	<0.002	6.7	0.024	<0.006	**6.0**	<0.005	7.7	0.17	76	<0.05	<0.005	570	NL	NL
	9/13/2010	6010B	<0.02	0.085	<0.002	60	**0.08**	<0.006	**3.7**	<0.005	14	0.14	13	<0.05	<0.005	790	0.002	NL
	6/8/2010	6010B	<0.02	0.035	<0.002	35	<0.006	<0.006	**4.6**	<0.005	10	0.094	10	<0.05	<0.005	730	NL	0.051
	3/10/2010	6020A	**2.3E-03**	5.66E-03	<0.001	136	9.56E-03	<0.001	0.693	<0.001	0.56	0.124	30.9	9.44E-03	NL	1910	1.04E-03	1.57E-02

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

	Parameters															
	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103	0.1	1.0	0.01	NE	0.05	1.0	1.0	0.05	NE	0.2	NE	0.05	0.05	NE	0.03	10.0
40 CFR 141.62 MCL (APR 2013)	0.01	2.0	NE	NE	NE	1.3[1]	NE	0.015	NE	NE	NE	0.05	NE	NE	0.03	NE
EPA RSL for Tap Water (NOV 2012)	4.5E-05	2.9	NE	NE	NE	0.62	11	NE	NE	NE	NE	0.078	0.071	NE	0.047	4.7
SAMPLE ID / DATE SAMPLED / METHOD																

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

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

NOTES
1) No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).

8.1.5 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Volatile Organic Compound Analytical Result Summary

			Parameters													
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	9.7E-03	0.027	12	4.9	0.72	21	1.9E-03	NE	NE	0.78	0.53	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
AL-2 to EP-1	11/28/2012	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.075	<0.05	<0.05	<0.01	<0.005	<0.005	<0.005	<0.015	<0.005	<0.005
	8/21/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.1	0.11	<0.02	<0.01	<0.01	<0.01	<0.03	<0.01	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.11	<0.1	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	3.1	0.22	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	12/14/2011	8260B	0.012	<0.005	**0.021**	**0.028**	**0.044**	0.75	0.39	0.082	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	9/28/2011[1]	8260B	<0.005	<0.005	<0.01	<0.02	0.024	0.62	0.23	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	6/15/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.57	0.097	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	3/8/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.01	**0.024**	**0.041**	1.8	0.14	<0.05	<0.01	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	9/13/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.91	0.21	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	6/8/2010	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.29	<0.1	<0.1	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/9/2010	8260B	**0.019**	<0.005	**0.045**	**0.21**	**0.34**	1.7	<0.05	<0.05	<0.01	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
	11/10/2009	8260B	5.2E-03	<0.01	**0.012**	**0.04**	**0.047**	0.75	0.089	0.24	0.26	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	8/19/2009	8260B	0.012	0.004	**0.023**	**0.052**	**0.084**	1.2	<0.01	<0.01	<0.002	<0.001	<0.001	<0.001	4.4E-03	1.5E-03	NL
	5/26/2009	8260B	6.3E-03	2.5E-03	**2.3E-03**	**0.047**	**0.041**	1.5	0.081	<0.01	<0.002	<0.001	<0.001	<0.001	1.2E-03	NL	NL
	3/31/2009	8260B	**0.022**	5.8E-03	**0.05**	**0.17**	**0.24**	0.93	<0.01	<0.01	<0.02	<0.001	<0.001	<0.001	7.9E-03	NL	NL
	12/2/2008	8260B	**0.12**	0.041	**0.078**	**0.19**	**0.28**	1.9	0.095	<0.5	<0.01	<0.05	6.6E-03	6.7E-03	<0.05	0.013	NL
	9/9/2008	8260B	<0.02	<0.02	<0.04	<0.08	<0.08	2.2	<0.20	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/2008	8260B	**0.039**	ND	**0.051**	**0.18**	**0.26**	3.8	0.35	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	3/1008	8260B	**0.6**	**0.17**	**0.33**	**0.34**	**0.52**	2.2	0.48	<0.1	<0.02	<0.01	0.012	0.015	0.055	0.045	<0.01
Pilot Effluent	12/5/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.025	<0.01	<0.01	<0.002	1.1E-03	<0.001	0.008	<0.003	<0.001	<0.001
	8/21/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.1	<0.1	<0.02	<0.01	<0.10	<0.01	<0.03	<0.01	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.1	0.23	<0.02	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	0.23	<0.1	<0.01	<0.02	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01
	12/14/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.062	<0.05	<0.05	<0.01	<0.005	<0.005	0.016	<0.005	<0.005	<0.005
	9/29/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	0.057	<0.01	<0.005	<0.005	7.2E-03	<0.005	<0.005	<0.005
	6/16/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	0.11	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	3/9/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	<0.05	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.098	<0.05	<0.5	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	9/16/2010	8260B[1]	<0.001	<0.001	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL	NL
	6/28/2010	8260B	<0.005	<0.005	<0.005	<0.02	<0.02	<0.05	<0.05	0.19	<0.01	<0.005	<0.006	<0.007	<0.009	<0.010	<0.011
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.02	<0.02	<0.05	<0.05	0.19	<0.01	<0.005	<0.006	<0.007	<0.009	<0.010	<0.011
	11/10/2009	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	0.15	<0.01	**6.2E-03**	<0.005	<0.005	<0.005	<0.005	<0.005
	8/19/2009	8260B	<0.001	<0.001	<0.02	<0.004	<0.004	0.29	0.014	<0.01	<0.002	**6.5E-03**	<0.001	1.9E-03	<0.001	<0.001	<0.001
	5/27/2009	8260B	<0.001	<0.001	<0.002	<0.004	NL	0.17	<0.01	<0.01	<0.002	**3.5E-03**	<0.001	2.4E-03	<0.001	<0.001	<0.001
	3/31/2009	8260B	**0.66**	**0.17**	**0.5**	**0.29**	NL	0.36	0.012	<0.01	<0.002	**0.003**	<0.001	7.9E-03	<0.001	<0.001	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.058	<0.01	<0.01	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

8.1.5 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Volatile Organic Compound Analytical Result Summary

			Parameters													
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Chloroethane (mg/L)	Chloroform (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	Sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.1	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	9.7E-03	0.027	12	4.9	0.72	21	1.9E-03	NE	NE	0.78	0.53	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
Pilot Effluent	9/9/2008	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.3	<0.05	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	6/17/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.078	0.01	<0.01	<0.002	**4.4E-03**	<0.001	<0.001	<0.001	<0.001	<0.001
	3/10/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.49	<0.01	<0.01	<0.002	**6.9E-03**	<0.001	<0.001	<0.001	<0.001	<0.001
NAPIS Effluent[2]	6/12/2012	8260B	**1.6**	**0.56**	**0.39**	<0.4	**0.48**	**7.2**	<1.0	<1.0	<0.2	<0.1	0.14	<0.1	0.1	0.28	<0.1
	3/21/2012	8260B	**0.9**	**0.27**	**0.32**	<0.4	<0.4	**14**	2.4	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	0.13	<0.1
	12/14/2011	8260B	**1.1**	**0.4**	**0.31**	<0.4	<0.4	10.0	<1.0	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	0.21	<0.1
	9/28/2011[1]	8260B	**1.2**	**0.39**	**0.25**	<0.4	<0.4	<1.0	<1.0	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	0.18	<0.1
	6/15/2011	8260B	**2.0**	**0.69**	**0.34**	<0.4	<0.4	<1.0	<1.0	<1.0	<0.2	<0.1	0.18	<0.1	<0.1	0.11	0.35	<.01
	3/8/2011	8260B	**0.67**	**0.2**	**0.39**	<0.4	<0.4	<1.0	<1.0	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	11/3/2010	8260B	**1.4**	**0.44**	**0.49**	<0.4	**0.47**	<1.0	<1.0	<1.0	<0.2	<0.1	<0.1	<0.1	<0.1	0.21	<0.1
	9/13/2010	8260B	**3.0**	**0.09**	**0.56**	<0.4	<0.4	<1.0	<1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	0.17	0.37	<0.1
	6/8/2010	8260B	**0.67**	**0.22**	**0.25**	**0.24**	**0.45**	<0.05	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	0.062	0.094	<0.1
	3/9/2010	8260B	**3.0**	**0.91**	**0.56**	**0.27**	**0.52**	<0.05	<0.5	<0.5	<0.1	<0.05	0.17	<0.05	0.32	**0.54**	0.07
	11/10/2009	8260B	**1.2**	**0.44**	**0.83**	**0.41**	**0.68**	11	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	0.21	<0.05
	8/19/2009	8260B	**0.69**	**0.2**	**0.59**	**0.24**	**0.42**	7.2	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	0.082	<0.05
	5/26/2009	8260B	**3.0**	**0.37**	**0.49**	**0.3**	**0.5**	8.9	0.8	<0.1	<0.2	<0.1	0.087	0.03	0.11	0.16	<0.05
	3/31/2009	8260B	**0.66**	**0.17**	**0.5**	**0.29**	**0.51**	**20**	2.2	<0.5	<0.1	<0.05	0.057	<0.05	0.1	0.085	<0.01
	12/2/2008	8260B	**0.4**	**0.1**	**0.43**	**0.29**	**0.46**	4.7	<0.5	<0.5	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
	9/9/2008	8260B	**0.053**	<0.02	**0.087**	<0.05	<0.08	**17**	1.9	<0.2	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	6/17/2008	8260B	**0.26**	<0.1	**0.29**	**0.4**	<0.4	**17**	2.5	<1.0	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	3/10/2008	8260B	**0.59**	**0.17**	**0.2**	**0.25**	**0.38**	0.5	<0.5	<0.5	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

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

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

NOTES
1) 9/28/2011 & 9/29/2011 - Quarterly sampling combined with Annual sampling event
2) No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).

8.1.6 EFFLUENTS (AL-2 to EP-1, Pilot Effluent, NAPIS Effluent)
Semi Volatile Organic Compound Analytical Result Summary

			Parameters															
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Carbazole (mg/L)	Chrysene (mg/L)	Dibenzofuran (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)	1-Methyl naphthalene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.03	NE	0.005	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.012	58	1.5	0.048	NE	0.029	5.8E-03	0.27	0.22	0.027	0.72	NE	1.4E-03	NE	4.5	0.087	0.015	9.7E-03
SAMPLE ID	**DATE SAMPLED**	**METHOD**																		
AL-2 to EP-1	12/5/2012[2]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.074**	<0.05	<0.05	
	8/21/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	6/12/2012	8270C	<0.05	<0.1	<0.05	<0.18	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	3/20/2012	8270C	**0.38**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	<0.05	<0.05	**1.4**	2.1	<0.05	<0.05	**5.4**	<0.05	<0.05	
	12/14/2011	8270C	**0.77**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.51**	<0.05	<0.05	**2.8**	5.7	<0.05	<0.05	**11**	<0.05	<0.05	
	9/28/2011	8270C	**0.29**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	**1.1**	0.89	<0.05	<0.05	**0.2**	<0.05	<0.05	
	6/15/2011	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	3/8/2011	8270C	**0.34**	<0.2	0.025	**0.015**	0.023	<0.01	<0.01	**0.37**	<0.01	<0.01	**2.3**	5.3	<0.01	0.017	**6.5**	<0.01	<0.01	
	11/3/2010	8270C	**0.16**	0.13	<0.05	<0.05	<0.05	<0.05	<0.05	**0.31**	<0.05	<0.05	**1.7**	4.3	<0.05	0.068	**6.3**	<0.05	<0.05	
	9/13/2010	8270C	**0.23**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	0.4	0.064	<0.05	<0.05	**0.1**	<0.05	<0.05	
	6/8/2010	8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/9/2010	8270C	**0.15**	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	**24**	0.055	**0.18**	**1.2**	2.7	<0.05	0.15	**4.8**	<0.05	NL	
	11/10/2009	8270C	**0.15**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	**0.067**	**1.2**	2.2	<0.05	0.12	**1.2**	<0.05	<0.05	
	8/19/2009	8270C	**0.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	0.052	**0.18**	**0.84**	0.95	<0.05	0.26	**2.6**	0.063	<0.05	
NAPIS Effluent[3]	6/12/2012	8270C	**0.6**	<0.1	<0.05	<0.18	<0.05	<0.05	<0.05	**0.53**	<0.05	**1.3**	**2.0**	4.2	**0.53**	0.2	**7.8**	<0.05	<0.05	**0.84**
	3/21/2012	8270C	**0.63**	<0.02	<0.01	<0.01	0.012	<0.01	<0.01	**0.33**	<0.01	**0.11**	**2.2**	4.0	**0.17**	<0.01	**8.6**	<0.01	<0.01	**0.073**
	12/14/2011	8270C	**0.85**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.65**	<0.05	**1.1**	**2.4**	4.2	**0.55**	0.2	**8.4**	<0.05	**0.12**	**0.61**
	9/28/2011	8270C	**0.43**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.33**	<0.05	**0.21**	**1.5**	3.2	**0.23**	<0.05	**6.3**	<0.05	<0.05	**0.12[1]**
	6/15/2011	8270C	**0.094**	<0.1	<0.05	**0.066**	<0.05	<0.05	<0.05	0.18	<0.05	**0.8**	0.48	0.96	**0.41**	0.12	**1.1**	<0.05	<0.05	
	3/8/2011	8270C	**1.1**	<0.1	<0.05	**0.054**	<0.05	<0.05	<0.05	**0.47**	<0.05	**0.24**	**2.4**	5.7	**0.29**	<0.05	**12**	<0.05	**0.051**	
	11/3/2010	8270C	**0.35**	0.37	<0.05	<0.05	<0.05	<0.05	<0.05	**0.41**	<0.05	**0.41**	**1.5**	3.6	**0.32**	<0.05	**5.7**	<0.05	<0.05	
	9/13/2010	8270C	**0.87**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.36**	0.076	**2.3**	**1.8**	3.7	**2.2**	0.23	**4.5**	<0.05	<0.05	
	6/8/2010	8270C	**0.6**	<0.1	<0.05	<0.05	<0.05	<0.05	**0.085**	**0.71**	0.21	**4.4**	**3.1**	5.6	**0.89**	0.99	**12**	**0.1**	<0.05	
	3/9/2010	8270C	**1.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.92**	0.11	**2.1**	**3.1**	8.1	**1.4**	0.35	**13**	0.059	**0.076**	
	11/10/2009	8270C	**1.4**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.3**	0.11	**1.7**	**4.4**	7.4	**1.3**	0.33	**14**	ND	**0.08**	
	8/19/2009	8270C	**0.32**	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	**0.34**	0.21	**5.6**	**1.3**	2.2	**3.2**	1.0	**4.4**	**0.16**	<0.1	
	5/26/2009	8270C	NL	NL	NL	NL	NL	NL	NL	0.2	NL	NL	**1.6**	3.9	NL	NL	**7.2**	NL	NL	
	3/31/2009	8270C	<0.1	1.0	<0.1	<0.075	<0.05	<0.075	<0.05	<0.05	<0.05	<0.05	<0.075	0.57	<0.05	<0.05	**0.056**	<0.075	<0.15	
	12/2/2008	8270C	NL	NL	NL	NL	NL	NL	NL	0.12	NL	NL	0.62	3.2	NL	NL	**6.8**	<0.05	<0.05	
	9/9/2008	8270C	**2.1**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	**0.49**	<0.05	**0.063**	**7.4**	13	**0.076**	<0.05	**25**	<0.05	<0.05	
	6/17/2008	8270C	**0.4**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	**0.5**	**4.9**	8.5	**0.24**	0.16	**17**	<0.05	<0.05	
	3/10/2008	8270C	<0.05	<0.1	<0.05	<0.05	0.071	**0.12**	<0.05	<0.05	0.093	**0.59**	0.15	0.17	**0.22**	0.44	**0.19**	**0.15**	<0.05	

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

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

NOTES
1) 8270C analysis detected 1-Methylnaphthalene for the first time.
2) 8270C anaysis only collected as this was missed during the fourth quarter sampling held the week of November 26, 2012.
3) No samples collected from NAPIS Effluent beginning the third quarter 2012. Effluent is now going into the new Waste Water Treatment Plant (WWTP).

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
Infl to AL-1[5]	6/14/2012	8260B	**0.67**	**1.3**	**0.13**	**0.83**	<0.01
	3/21/2012	8260B	**0.18**	0.36	**0.034**	**0.25**	<0.01
	12/14/2011	8260B	**0.27**	0.63	**0.11**	**0.8**	<0.005
	9/28/2011	8260B	**0.3**	**1.4**	**0.051**	**0.38**	<0.005
	6/16/2011	8260B	**0.035**	0.097	**0.02**	**0.15**	<0.005
	3/9/2011	8260B	**0.074**	0.14	**0.014**	0.1	<0.005
	11/3/2010	8260B	**0.011**	0.056	**0.019**	0.13	<0.005
	9/13/2010[4]	8260B	**0.012**	0.031	<0.005	0.038	<0.005
	6/7/2010[3]	8260B	NA	NA	NA	NA	NA
	3/9/2010[2]	8260B	**0.19**	0.6	**0.13**	**0.8**	<0.010
Infl to AL-2	11/28/2012	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/21/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	12/14/2011	8260B	**0.02**	0.063	**0.025**	0.17	<0.01
	9/28/2011	8260B	**0.046**	0.093	**7.7E-03**	0.06	<0.005
	6/16/2011	8260B	<0.005	7.2E-03	<0.005	0.015	<0.005
	3/9/2011	8260B	<0.005	6.2E-03	<0.005	<0.0075	<0.005
	9/13/2010[4]	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/7/2010[3]	8260B	NA	NA	NA	NA	NA
	3/9/2010[2]	8260B	**0.017**	0.061	**0.017**	0.1	<0.1
Infl to EP-1	11/28/2012	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/12/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/20/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	12/15/2011	8260B	<0.01	0.017	<0.01	0.057	<0.01
	9/28/2011	8260B	<0.005	9.5E-03	<0.005	<0.0075	<0.005
	6/15/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	3/9/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	9/13/2010[4]	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	6/28/2010	8260B	<0.02	<0.02	<0.02	<0.03	<0.02
	3/10/2010	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	10/27/2009	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	5/6/2009	8260B	<0.005	<0.005	<0.005	0.012	<0.005
	12/2/2008	8260B	**0.007**	0.081	**0.03**	**0.23**	<0.005
	9/9/2008	8260B	<0.01	<0.01	<0.01	<0.0015	<0.01
	8/21/2008	8260B	**0.023**	0.028	<0.005	0.029	<0.005
	6/17/2008	8260B	<0.01	0.012	<0.01	0.024	<0.01
	1/1/2008	8260B	**0.13**	0.22	**0.39**	**0.22**	5.2E-03
	10/30/2006	8260B	<0.01	<0.01	<0.01	0.062	<0.015
	3/30/2006	8260B	**0.21**	0.44	**0.06**	**0.43**	<0.075

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES
2) 3/9/2010 samples, used unapproved Facility Wide Ground Water Monitoring Work Plan for analysis.
3) 6/7/2010 , Method 8260B analysis not requested to be analyzed.
4) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).
5) Beginning third quarter 2012 no samples were collected. Influent going to new WWTP.

8.2.1 INFLUENTS (Infl to Al-1, Infl to AL-2, Infl to EP-1)
General Chemistry Analytical Result Summary

			Parameters												
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [3] (mg/L)	BOD (mg/L)	COD (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**	**0.2[2]**	**NE**	**NE**	**<30[1]**	**<125[1]**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
Infl to AL-1[6]	6/14/2012	300.0/8015B	NA	210	NA	NA	NA	NA	NA	**8.73**	NA	**9.2**	8.1	44	**410**	**1100**
	3/21/2012	300.0/8015B	NA	**740**	NA	NA	NA	NA	NA	**9.13**	NA	**26**	4.5	<5.0	**840**	**1900**
	12/14/2011	300.0/8015B	NA	**1000**	NA	NA	NA	NA	NA	**9.81**	NA	**48**	6.6		**1000**	**2440**
	9/28/2011	300.0/8015B	NA	**940**	NA	NA	NA	NA	NA	**9.82**	NA	**8.3**	7.4		**450**	**760**
	6/16/2011	300.0/8015B	NA	**290**	NA	NA	NA	NA	NA	**9.03**	NA	**5.9**	2.2		**730**	**905**
	3/9/2011	300.0/8015B	NA	**350**	NA	NA	NA	NA	NA	**8.61**	NA	**9.8**	1.7		**1600**	**2500**
	11/3/2010	300.0/8015B	**95**	**250**	NL	<1.0	**14**	<0.1	**950**	NA	NA	**8.1**	8		**530**	**1100**
	9/13/2010[6]	300.0/8015B	NA	**260**	NA	NA	NA	NA	NA	**10.24**	NA	**7.9**	0.57		**780**	**774**
	6/7/2010[5]	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		**400**	**200**
	3/9/2010[4]	300.0/8015B	NA	**280**	NA	NA	NA	NA	NA	**10.44**	NA	**60**	6		**1150**	**1760**
Infl to AL-2	11/28/2012	300.0/8015B	NA	**450**	NA	NA	NA	NA	NA	7.96	NA	**3.0**	<0.25	<5.0	**44**	**290**
	8/21/2012	300.0/8015B	NA	**470**	NA	NA	NA	NA	NA	**8.68**	NA	<1.0	<0.5	<5.0	16	**240**
	6/12/2012	300.0/8015B	NA	**640**	NA	NA	NA	NA	NA	**7.96**	NA	**9.4**	0.5	<5.0	**130**	**610**
	3/20/2012	300.0/8015B	NA	**1400**	NA	NA	NA	NA	NA	7.52	NA	**8.0**	1.2	<5.0	**440**	**1090**
	12/14/2011	300.0/8015B	NA	**2400**	NA	NA	NA	NA	NA	**10.42**	NA	**32**	1.7		**780**	**2330**
	9/28/2011	300.0/8015B	NA	**2100**	NA	NA	NA	NA	NA	**9.09**	NA	**23**	1.2		**340**	**654**
	6/16/2011	300.0/8015B	NA	210	NA	NA	NA	NA	NA	8.45	NA	**7.7**	2		**540**	**779**
	3/9/2011	300.0/8015B	NA	**330**	NA	NA	NA	NA	NA	8.11	NA	**9.2**	0.45		**1800**	**2500**
	11/3/2010	300.0/8015B	**160**	210	NL	<2.0	5.7	<0.1	**990**	NA	NA	**7.0**	0.69		**920**	**1700**
	9/13/2010[6]	300.0/8015B	NA	240	NA	NA	NA	NA	NA	7.75	NA	**7.3**	0.47		**280**	**378**
	6/7/2010[5]	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		**310**	**1200**
	3/9/2010[4]	300.0/8015B	NA	**260**	NA	NA	NA	NA	NA	**8.99**	NA	**1.3**	1.3		**650**	**1890**
Infl to EP-1	11/28/2012	300.0/8015B	**4.5**	**360**	<0.5	<0.5	<0.5	<2.5	**700**	7.88	NA	**9.2**	<0.25	<5.0	**69**	**220**
	8/21/2012	300.0/8015B	**8.4**	**510**	0.51	<0.5	<0.5	<2.5	**1000**	**8.91**	NA	**9.6**	<0.5	<5.0	23	**260**
	6/12/2012	300.0/8015B	**65**	**980**	1.9	<1.0	<1.0	<5.0	**1400**	**7.98**	NA	**12**	<0.5	<5.0	**85**	**490**
	3/20/2012	300.0/8015B	**60**	**2600**	4.7	2.8	<1.0	<5.0	**820**	7.79	NA	**12**	<1.0	<5.0	**610**	**1600**
	12/15/2011	300.0/8015B	**49**	**3200**	2.3	**10**	**10**	<2.5	**1300**	**9.54**	NA	**38**	0.63		**520**	**1840**
	9/28/2011	300.0/8015B	**25**	**3300**	580	**67**	**67**	<10	**1800**	**8.68**	NA	**8.3**	0.78		**180**	**602**
	6/16/2011	300.0/8015B	**140**	**250**	1.8	<1.0	<1.0	<5.0	**1200**	8.44	NA	**10**	0.56		**600**	**965**
	3/9/2011	300.0/8015B	**260**	**300**	3.0	<0.5	<0.5	<2.5	**940**	7.75	NA	**8.4**	0.34		**1700**	**2400**
	11/3/2010	300.0/8015B	**100**	220	NL	<0.002	<0.002	<1.0	**940**	7.54	4000	**45**	0.34		**840**	**1700**
	9/13/2010[7]	300.0/8015B	**59**	230	NL	1.5	1.5	<5.0	**1300**	NA	NA	**9.4**	0.38		**200**	**375**
	6/28/2010	300.0/8015B	**140**	220	1.9	<1.0	<1.0	<5.0	**2000**	7.42	5200	**140**	2.8		NA	NA
	3/10/2010	300.0/8015B	**66**	**440**	1.1	1.6	1.6	**2.5**	**920**	7.94	20000	**150**	0.34		**159**	**795**
	10/27/2009	300.0/8015B	**120**	**250**	1.3	0.8	0.68	<5.0	**310**	7.76	2600	**29**	0.83		**265**	**1660**
	5/6/2009	300.0/8015B	**66**	120	NA	NA	NA	NA	**710**	7.36	2600	**100**	2.1		**556**	**545**
	12/2/2008	300.0/8015B	NA	**350**	NA	NA	NA	NA	NA	7.62	NA	**120**	<0.005		**231**	**840**

8.2.1 INFLUENTS (Infl to Al-1, Infl to AL-2, Infl to EP-1)
General Chemistry Analytical Result Summary

			Parameters												
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [3] (mg/L)	BOD (mg/L)	COD (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**	**0.2[2]**	**NE**	**NE**	**<30[1]**	**<125[1]**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
Infl to EP-1	9/9/2008	300.0/8015B	NA	170	NA	NA	NA	NA	NA	7.93	NA	**140**	<.2		**260**	**1360**
	6/17/2008	300.0/8015B	NA	NA	NA	NA	NA	NA	NA	7.43	NA	**140**	2.7		NL	NL

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) 20 NMAC 20.6.2.2101 General Requirements
2) NMED Table 6 (unknown oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (Jun 2012)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
3) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.
4) 3/9/2010 samples, used unapproved Facility Wide Ground Water Monitoring Work Plan for analysis.
5) 6/7/2010 , Method 8260B analysis not requested to be analyzed.
6) 9/13/2010 used Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).
7) Beginning third quarter 2012 no samples were collected. Influent going to new WWTP.

8.2.2 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Total Metals Analytical Result Summary

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
Infl to EP-1	11/28/2012	200.7/200.8	**4.5E-03**	0.023	<0.006	<0.006	0.36	<0.005	0.066	<0.0025	<0.0002	<0.0025	0.023
	8/21/2012	200.7/200.8	**0.005**	0.038	<0.006	0.009	0.47	<0.005	0.068	3.4E-03	<0.0002	<0.0025	0.064
	6/12/2012	200.7/200.8	**8.7E-03**	0.1	8.8E-03	0.02	**5.3**	<0.005	0.12	0.023	**2.5E-03**	<0.0025	0.31
	3/20/2012	200.7/200.8	**0.021**	0.3	0.022	0.03	**12**	5.8E-03	**0.31**	0.022	<0.0002	5.1E-03	0.071
	12/15/2011	200.7/200.8	**0.015**	0.17	0.019	0.021	**11**	<0.01	0.13	0.016	**0.012**	5.3E-03	0.21
	9/28/2011	200.7/200.8	**9.7E-03**	0.09	0.013	0.028	**5.9**	<0.005	0.077	0.021	**2.3E-03**	<0.0025	0.23
	6/15/2011	200.7/200.8	**0.016**	0.099	0.029	0.017	**15**	<0.005	**0.22**	0.017	**9.0E-04**	<0.0025	0.62
	3/9/2011	200.7/200.8	**0.011**	0.045	0.023	7.2E-03	**6.5**	<0.005	**0.21**	<0.05	2.6E-04	<0.0025	0.18
	9/13/2010[2]	6010B	<0.02	0.17	**0.76**	0.02	**10**	<0.005	**0.23**	<0.05	5.6E-04	0.001	0.59
	6/28/2010	200.8	**0.021**	0.34	0.026	0.058	**25**	0.01	**0.31**	0.039	<0.0008	5.3E-03	0.55
	3/10/2010[1]	6010B	<0.02	0.17	**0.067**	0.033	**18**	8.7E-03	**0.72**	<0.05	3.7E-04	1.69E-03	0.39

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

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

NOTES
March 9, 2011 Total and dissolved samples had significant amounts of very fine suspended solids which may account for some of the dissolved metals being higher than total analysis.
2) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.3 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Dissolved Metals Analytical Result Summary

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**														
Infl to EP-1	11/28/2012	200.7/200.8	**4.6E-03**	0.025	230	<0.006	<0.006	0.32	<0.005	63	0.072	22	0.002	280	<0.005	0.043
	8/21/2012	200.7/200.8	**4.2E-03**	0.03	250	<0.006	<0.006	0.18	<0.005	61	0.047	31	2.3E-03	430	2.3E-03	0.054
	6/12/2012	200.7/200.8	**6.5E-03**	0.039	94	<0.006	9.2E-03	**2.5**	<0.005	33	0.11	170	0.015	850	<0.002	0.14
	3/20/2012	200.7/200.8	**0.013**	0.051	130	<0.006	<0.006	**2.5**	<0.005	45	**0.27**	150	0.022	1500	2.7E-03	0.071
	12/15/2011	200.7/200.8	**0.009**	0.022	43	0.01	<0.006	**1.7**	<0.005	43	0.093	0.39	8.8E-03	2400	4.7E-03	0.027
	9/28/2011	200.7/200.8	**9.1E-03**	0.017	72	<0.006	<0.006	**1.3**	<0.005	110	0.05	910	0.016	2100	<0.005	0.047
	6/15/2011	200.7/200.8	**0.013**	0.046	48	<0.03	<0.03	**16**	<0.025	18	**0.24**	75	0.023	1100	<0.005	0.57
	3/9/2011	200.7/200.8	**8.2E-03**	0.021	16	0.02	<0.006	**4.9**	<0.005	12	0.02	52	<0.05	710	<0.005	0.1
	11/3/2010	6010B	NL	NL	40	NL	NL	NL	NL	12	NL	40	NL	660	NL	NL
	9/13/2010[2]	6010B	<0.02	0.044	38	**0.12**	<0.006	**2.2**	<0.005	14	**0.2**	0.26	<0.05	740	<0.001	<0.001
	6/28/2010	6010B	**0.012**	0.039	NL	0.015	<0.006	**12**	<0.005	NL	**0.27**	NL	0.029	NL	NL	0.071
	3/10/2010[1]	6010B	<0.02	0.029	45	0.023	0.011	**9.6**	7.2E-03	14	**0.58**	32	<0.05	990	1.1E-03	0.28

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

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

NOTES
1) 3/10/2010 samples, used unapproved Facility Wide Ground Water Monitoring Work Plan for analysis.
2) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).

8.2.4 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Volatile Organic Compound Analytical Result Summary

			Parameters											
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	9.7E-03	0.027	12	4.9	0.72	0.679	NE	0.78	0.53	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
Infl to AL-1[4]	6/14/2012	8260B	**0.16**	0.047	**0.13**	**0.073**	**0.11**	1.6	0.28	<0.1	<0.01	<0.01	<0.01	0.019	<0.01
	3/21/2012	8260B	**0.073**	0.022	**0.1**	**0.071**	**0.12**	11	1.8	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
	12/14/2011	8260B	**0.35**	**0.12**	**0.12**	**0.13**	**0.22**	7.9	<0.05	0.065	0.019	0.011[3]	0.028	0.052	<0.005
	9/28/2011	8260B	**0.08**	0.024	**0.05**	**0.027**	**0.046**	0.85	0.38	<0.05	<0.005		<0.005	9.1E-03	<0.005
	6/16/2011	8260B	**0.1**	0.036	**0.047**	**0.043**	**0.08**	0.65	<0.05	<0.05	5.5E-03		7.9E-03	0.015	<0.005
	3/9/2011	8260B	**0.033**	9.8E-03	**0.077**	**0.074**	**0.13**	1.0	<0.05	<0.05	<0.005		<0.005	<0.005	<0.005
	11/3/2010	8260B	**0.14**	0.047	**0.078**	**0.15**	**0.25**	0.83	<0.05	<0.05	<0.05		0.029	0.019	6.2E-03
	9/13/2010[2]	8260B	**0.026**	0.007	**0.03**	<0.02	0.021	1.5	0.28	<0.05	<0.005		<0.005	<0.005	<0.005
	3/9/2010[1]	8260B	**0.41**	**0.12**	**0.27**	**0.091**	**0.16**	6.1	<0.1	<0.1	0.016		0.024	0.063	<0.01
Infl to AL-2	11/28/2012	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	<0.05	<0.05	<0.05	<0.005		<0.015	<0.005	<0.005
	8/21/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.1	<0.1	<0.01		<0.03	<0.01	<0.01
	6/12/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	1.1	0.21	<0.1	<0.01		<0.01	<0.01	<0.01
	3/20/2012	8260B	<0.01	<0.01	<0.01	<0.04	<0.04	4.4	0.26	<0.1	<0.01		<0.01	<0.01	<0.01
	12/14/2011	8260B	**0.094**	0.033	**0.072**	**0.067**	**0.11**	4.3	0.63	<0.1	<0.01		<0.01	0.015	<0.01
	9/28/2011	8260B	**0.015**	<0.005	**0.021**	<0.02	**0.034**	1.5	0.52	<0.05	<0.005		<0.005	<0.005	<0.005
	6/16/2011	8260B	0.014	<0.005	**0.016**	**0.032**	**0.056**	0.63	<0.05	0.086	<0.005		<0.005	<0.005	<0.005
	3/9/2011	8260B	<0.005	<0.005	**0.012**	<0.02	0.023	1.3	<0.05	<0.05	<0.005		<0.005	<0.005	<0.005
	11/3/2010	8260B	0.006	<0.005	<0.01	**0.026**	**0.041**	1.7	<0.05	<0.05	<0.005		<0.005	<0.005	<0.005
	9/13/2010[2]	8260B	6.8E-03	<0.005	<0.01	<0.02	<0.02	2.2	0.3	<0.05	<0.005		<0.005	<0.005	<0.005
	3/9/2010[1]	8260B	**0.071**	0.021	**0.088**	**0.068**	**0.11**	6.9	<0.1	<0.1	<0.01		<0.01	0.01	<0.01
Infl to EP-1	11/28/2012	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.068	<0.05	<0.05	<0.005		<0.015	<0.005	<0.005
	8/21/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.014	<0.01	<0.01	<0.001		<0.003	<0.001	<0.001
	6/12/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	0.015	<0.01	<0.01	<0.001		<0.001	<0.001	<0.001
	3/20/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	3.1	0.25	<0.1	<0.01		<0.01	<0.01	<0.01
	12/15/2011	8260B	**0.048**	0.015	**0.034**	**0.054**	**0.088**	4.1	0.38	<0.1	<0.01		<0.01	<0.01	<0.01
	9/28/2011	8260B	<0.005	<0.005	<0.01	<0.02	0.023	0.65	0.26	<0.05	<0.005		<0.005	<0.005	<0.005
	6/15/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.51	<0.05	<0.05	<0.005		<0.005	<0.005	<0.005
	3/9/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	1.2	0.48	<0.05	<0.005		<0.005	<0.005	<0.005
	11/3/2010	8260B	<0.005	<0.005	<0.01	<0.02	0.021	1.5	0.13	<0.05	<0.005		<0.005	<0.005	<0.005
	9/13/2010[2]	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.93	0.2	<0.05	<0.005		<0.005	<0.005	<0.005
	6/28/2010	8260B	<0.02	<0.02	<0.04	<0.08	<0.08	0.055	<0.2	<0.2	<0.02		<0.02	<0.02	<0.02
	3/10/2010	8260B	**6.1**	<0.005	**0.033**	**0.065**	**0.1**	1.9	<0.05	<0.05	<0.005		<0.005	<0.005	<0.005
	5/6/2009	8260B	0.014	6.1E-03	<0.004	**0.095**	**0.096**	1.4	0.12	<0.02	<0.002		6.4E-03	<0.002	<0.002
	12/2/2008	8260B	**0.11**	0.037	**0.072**	**0.14**	**0.22**	1.7	0.1	<0.05	7.3E-03		0.019	0.013	<0.005
	9/9/2008	8260B	**0.04**	<0.01	**0.067**	**0.24**	**0.35**	1.7	0.21	<0.1	<0.1		0.011	<0.01	<0.01
	6/17/2008	8260B	**0.033**	<0.01	**0.053**	**0.087**	**0.13**	1.6	0.32	<0.1	<0.01		<0.01	<0.01	<0.01

8.2.4 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Volatile Organic Compound Analytical Result Summary

				Parameters										
				1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103				NE	NE	0.03	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)				0.015	0.087	1.4E-03	9.7E-03	0.027	12	4.9	0.72	0.679	NE	0.78	0.53	NE
SAMPLE ID	DATE SAMPLED	METHOD														

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

NOTES:

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

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

3) 8260B analysis detected 4-Isopropyltoluene for the first time.

4) Beginning third quarter 2012 no samples were collected. Influent going to new WWTP.

8.2.5 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Semi-Volatile Organic Compound Analytical Result Summary

			Parameters											
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	2,4-Dimethylphenol (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	1-Methyl naphthalene (mg/L)	Carbazole (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.006
EPA RSL for Tap Water (NOV 2012)			0.012	58	1.5	0.27	0.027	0.72	NE	1.4E-03	NE	4.5	9.7E-03	NE	0.048
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
Infl to AL-1[6]	6/14/2012	8270C	**0.41**	<0.02	0.013	0.24	**0.11**	**1.2**	2.1	**0.096**	0.013	**4.1**	**0.073**	0.011[4]	
	3/21/2012	8270C	**0.84**	<0.1	<0.05	**0.4**	**0.085**	**2.5**	5.3	**0.076**	<0.05	**11**	**0.06**		
	12/14/2011	8270C	**0.98**	<0.1	<0.05	**0.27**	**0.11**	**3.0**	5.6	**0.073**	<0.05	**12**	**0.062[1]**		
	9/28/2011	8270C	**0.48**	<0.1	<0.05	**0.34**	**0.05**	**1.6**	3.2	**0.063**	<0.05	**4.4**			
	6/16/2011	8270C	<0.05	<0.01	<0.05	0.088	**0.14**	0.22	0.36	<0.05	0.056	**0.5**			
	3/9/2011	8270C	**0.69**	<0.01	<0.05	**0.28**	<0.05	**1.7**	3.8	<0.05	<0.05	**8.1**			
	11/3/2010	8270C	**0.58**	0.32	<0.05	**0.42**	**0.3**	**1.5**	3.1	**0.08**	0.17	**5.5**			
	9/13/2010[3]	8270C	**0.26**	0.13	<0.05	**0.36**	<0.05	**0.93**	1.8	<0.05	<0.05	**25**			
	6/7/2010	8270C	NL	NL	NL	0.2	NL	**1.0**	1.6	NL	NL	**2.6**			
	9/8/2009	8270C	NL	NL	NL	<0.05	NL	0.15	1.1	NL	NL	**2.4**			
	6/25/2009	8270C	NL	NL	NL	**0.27**	NL	**1.6**	3.4	NL	NL	**6.8**			
	2/26/2009	8270C	NL	NL	NL	0.066	NL	**0.75**	1.9	NL	NL	**4.7**			
	1/27/2009	8270C	NL	NL	NL	**0.84**	NL	**1.1**	4.2	NL	NL	**7.9**			
Infl to AL-2	12/5/2012[7]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			<0.05
	8/21/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			**0.072[5]**
	6/12/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	3/20/2012	8270C	**0.2**	<0.1	<0.05	0.098	<0.05	**0.9**	1.3	<0.05	<0.05	**3.4**			
	12/14/2011	8270C	**0.91**	<0.1	<0.05	**0.7**	**0.089**	**3.0**	5.8	**0.058**	<0.05	**10**			
	9/28/2011	8270C	**0.39**	<0.1	<0.05	**0.27**	<0.05	**1.7**	2.5	<0.05	<0.05	**3.3**			
	6/16/2011	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	3/9/2011	8270C	<0.05	<0.1	<0.05	0.1	<0.05	0.67	1.2	<0.05	<0.05	**2.4**			
	11/3/2010	8270C	**0.21**	0.14	<0.05	**0.3**	<0.05	**1.7**	3.8	<0.05	0.053	**6.1**			
	9/13/2010[3]	8270C	**0.29**	<0.1	<0.05	0.21	<0.05	**0.81**	0.63	<0.05	<0.05	<0.05			
	6/7/2010	8270C	NL	NL	NL	<0.05	NL	<0.05	<0.05	NL	NL	<0.05			
	9/8/2009	8270C	NL	NL	NL	0.098	NL	0.57	1.2	NL	NL	**0.89**			
	9/8/2009	8270C	NL	NL	NL	0.11	NL	**1.3**	2.5	NL	NL	**3.6**			
	2/26/2009	8270C	NL	NL	NL	<0.05	NL	**1.2**	2.4	NL	NL	**5.6**			
	1/27/2009	8270C	NL	NL	NL	**0.35**	NL	**1.0**	2.4	NL	NL	**2.5**			
Infl to EP-1	12/5/2012[7]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	**0.062**			
	8/21/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	6/12/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
	3/20/2012	8270C	**0.36**	<0.1	<0.05	0.17	<0.05	**1.6**	2.2	<0.05	<0.05	**6.1**			
	12/15/2011	8270C	**0.85**	<0.1	<0.05	**0.71**	<0.05	**3.7**	7.1	<0.05	<0.05	**12**			
	9/28/2011	8270C	**0.22**	<0.1	<0.05	0.15	<0.05	**1.1**	1.1	<0.05	<0.05	**0.49**			
	6/15/2011	8270C	**0.061**	<0.1	<0.05	0.1	<0.05	0.12	<0.05	<0.05	<0.05	<0.05			
	3/9/2011	8270C	**0.24**	<0.1	<0.05	0.17	<0.05	**1.1**	2.2	<0.05	<0.05	**3.0**			
	11/3/2010	8270C	**0.25**	0.14	<0.05	**0.37**	<0.05	**1.6**	3.7	<0.05	0.06	**5.9**			
	9/13/2010[3]	8270C	**0.24**	<0.1	<0.05	0.18	<0.05	0.48	<0.05	<0.05	<0.05	<0.05			
	6/28/2010	8270C	**0.06**	<0.1	<0.05	<0.05	**0.097**	<0.05	<0.05	<0.05	0.1	<0.05			
	6/7/2010	8270C	NL	NL	NL	NL	<0.05	NL	NL	NL	NL	NL			
	3/10/2010[2]	8270C	**0.19**	<0.1	0.87	**0.37**	**0.16**	**1.4**	1.7	<0.05	0.12	**2.7**			

8.2.5 INFLUENTS (Infl to AL-1, Infl to AL-2, Infl to EP-1)
Semi-Volatile Organic Compound Analytical Result Summary

			Parameters											
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	2,4-Dimethylphenol (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	1-Methyl naphthalene (mg/L)	Carbazole (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.005**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.006**
EPA RSL for Tap Water (NOV 2012)			**0.012**	**58**	**1.5**	**0.27**	**0.027**	**0.72**	**NE**	**1.4E-03**	**NE**	**4.5**	**9.7E-03**	**NE**	**0.048**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
Infl to EP-1	10/27/2009	8270C	**0.16**	NL	NL	0.065	NL	NL	1.1	**3.9**	0.078	**2.1**			
	9/8/2009	8270C	NL	NL	NL	0.16	NL	**1.2**	2.4	NL	NL	**29**			
	5/6/2009	8270C	**0.071**	NL	NL	0.078	NL	0.48	NL	NL	0.12	NL			
	2/26/2009	8270C	NL	NL	NL	<0.05	NL	**1.3**	2.5	NL	NL	**4.8**			
	12/2/2008	8270C	NL	NL	NL	0.087	NL	0.55	0.86	NL	NL	**1.5**			
	9/9/2008	8270C	NL	NL	NL	0.2	NL	0.45	0.6	NL	NL	**1.3**			

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

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

NOTES
1) Analyte detected for the first time during 4th quarter 2011 using 8270C analysis.
2) 3/10/2010 samples, used unapproved Facility Wide Ground Water Monitoring Work Plan for analysis.
3) 9/13/2010 used approved Facility Wide Ground Water Monitoring Work Plan sample schedule for analysis (approved August 25, 2010).
4) Detected for the first time during 2nd quarter 2012.
5) Analyte detected for the first time during the 3rd quarter 2012 sampling using 8270C analysis.
6) Beginning third quarter 2012 no samples were collected. Influent going to new WWTP.
7) 8270C analysis missed during the 4th quarter sampling of 11/28/12.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
OW-1	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/21/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/15/2010[2]	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-10	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.23**
	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.044
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.013
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.031
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.058
	10/26/2011[2]	8260B	<0.001	<0.001	<0.001	<0.0015	0.038
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.046
	2/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	11/10/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.036
	9/21/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.037
	3/15/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	0.033

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES
2) Quarterly sampling for OW-1 and OW-10 began in 4th Quarter 2010 per approved Facility Ground Water Plan dated August 25, 2010.

8.4.1 OW-1, OW-10

General Chemistry Analytical Result Summary

			Parameters									
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**											
OW-1	11/27/2012	300.0/8015B	<0.5	72	0.75	<1.0	<1.0	<2.5	180	NA	<1.0	<0.5	<5.0
	8/22/2012	300.0/8015B	0.24	62	0.26	<1.0	<1.0	<0.5	170	NA	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.34	61	0.26	<1.0	<1.0	NL	180	8.76	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.34	62	0.27	<0.1	0.33	<0.5	170	NA	<1.0	<0.05	<5.0
	12/15/2011	300.0/8015B	0.31	63	0.25	<1.0	<1.0	<0.5	180	NA	<1.0	<0.05	
	10/27/2011	300.0/8015B	0.3	65	0.21	<0.1	<0.1	<0.5	180	NA	NL	<0.05	
	6/20/2011	300.0/8015B	0.33	64	0.3	<0.1	0.5	<0.5	180	8.87	<1.0	<0.05	
	3/1/2011	300.0/8015B	0.29	68	0.27	1.1	1.1	<0.5	180	NA	<1.0	<0.05	
	11/10/2010	300.0/8015B	0.31	64	NL	<1.0	<1.0	<0.5	180	NA	<1.0	<0.05	
	9/10/2010	300.0/8015B	0.32	60	NL	<1.0	<1.0	<0.5	190	NA	<1.0	<0.05	
	3/15/2010	300.0/8015B	0.33	58	0.24	4.1	4.1	<0.5	190	NA	<1.0	<0.05	
OW-10	11/27/2012	300.0/8015B	<0.5	**2100**	11	<4.0	<4.0	<2.5	240	NA	<1.0	0.13	<5.0
	8/22/2012	300.0/8015B	0.34	**280**	0.59	<1.0	<1.0	<0.5	130	NA	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.31	**980**	<2.0	<1.0	<1.0	<10	160	7.65	<1.0	0.14	<5.0
	3/22/2012	300.0/8015B	0.41	**260**	0.64	<0.1	0.59	<0.5	140	NA	<1.0	0.062	<5.0
	12/15/2011	300.0/8015B	0.31	**420**	0.54	<1.0	<1.0	<0.5	150	NA	<1.0	0.084	
	10/26/2011	300.0/8015B	0.34	**500**	0.82	<2.0	0.38	<0.5	140	NA	NL	<0.05	
	6/20/2011	300.0/8015B	<0.50	**300**	0.75	<2.0	0.52	<0.5	140	8.42	<0.001	0.053	
	2/28/2011	300.0/8015B	0.34	**490**	0.76	1.1	1.1	<0.5	140	NA	<0.001	0.062	
	11/10/2010	300.0/8015B	0.38	**450**	NL	<1.0	<1.0	<0.5	150	NA	<0.001	<0.05	
	9/21/2010	300.0/8015B	0.35	**790**	NL	<1.0	<1.0	<0.5	160	NA	<0.001	<0.05	
	3/15/2010	300.0/8015B	0.4	**390**	0.7	2.2	2.2	<0.5	150	NA	<0.001	0.064	

DEFINITIONS

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

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
1) NMED Table 6 (unknown oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (Jun 2012)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.

8.4.2 OW-1, OW-10

Total Metals Analytical Result Summary

			Parameters										
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Uranium (mg/L)	Mercury (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.03**	**0.002**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.03**	**0.002**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**11**	**NE**	**NE**	**0.078**	**0.071**	**0.047**	**6.3E-04**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**												
OW-1	11/27/2012	200.7/200.8	<0.0025	0.035	<0.002	<0.006	0.18	<0.005	0.013	2.6E-03	<0.005	**0.045**	<0.0002	<0.01
	8/22/2012	200.7/200.8	<0.0025	0.039	<0.002	<0006	0.19	<0.005	0.027	4.1E-03	<0.005	**0.04**	<0.002	<0.01
	6/13/2012	200.7/200.8	<0.0025	0.035	<0.002	<0.006	0.074	<0.005	0.012	4.2E-03	<0.005	**0.039**	<0.0002	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.045	<0.002	<0.006	0.23	<0.005	0.058	3.5E-03	<0.005	**0.041**	<0.0002	0.01
	12/15/2011	200.7/200.8	<0.0025	0.066	<0.002	7.2E-03	**2.7**	<0.005	0.13	3.7E-03	<0.005	**0.046**	<0.0002	0.25
	10/27/2011	200.7/200.8	<0.0025	0.036	<0.002	<0.006	0.042	<0.005	0.013	3.5E-03	<0.005	**0.04**	<0.0002	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.039	<0.002	<0.006	0.053	<0.005	0.016	5.6E-03	<0.005	**0.047**	<0.0002	<0.01
	3/1/2011	200.7/200.8	<0.0025	0.038	<0.002	<0.006	0.058	<0.005	0.013	<0.05	<0.005	**0.053**	NL	<0.01
	11/10/2010	6010B	<0.02	<0.02	<0.002	<0.006	<0.05	<0.005	6.6E-03	<0.05	<0.005	**0.039**	<0.0002	<0.02
	9/21/2010	6010B	<0.02	0.038	<0.002	<0.006	0.081	<0.005	0.023	<0.05	<0.005	**0.038**	<0.0002	<0.02
	3/15/2010	6010B	<0.02	0.031	<0.002	<0.006	0.16	<0.005	0.012	<0.05	<0.005	**3.94E-02**	<0.0002	<0.02
OW-10	11/27/2012	200.7/200.8	<0.0025	0.11	<0.002	<0.006	<0.02	<0.005	0.13	0.013	<0.005	**0.087**	<0.0002	<0.01
	8/22/2012	200.7/200.8	<0.0025	0.037	<0.002	<0.006	0.03	<0.005	3.4E-03	8.4E-03	<0.005	**0.049**	<0.0002	<0.01
	6/13/2012	200.7/200.8	<0.0025	0.079	<0.002	<0.006	<0.02	<0.005	0.054	0.013	<0.005	**0.062**	<0.0002	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.033	<0.002	<0.006	0.029	<0.005	<0.002	7.6E-03	<0.005	**0.051**	<0.0002	<0.01
	12/15/2011	200.7/200.8	<0.0025	0.037	<0.002	<0.006	<0.02	<0.005	0.022	8.9E-03	<0.005	**0.058**	<0.0002	<0.01
	10/26/2011	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.043	7.1E-03	<0.005	**0.051**	<0.0002	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.038	<0.002	<0.006	<0.02	<0.005	8.6E-03	0.013	<0.005	**0.057**	<0.0002	<0.01
	2/28/2011	200.7/200.8	<0.0025	0.045	<0.002	<0.006	<0.02	<0.005	0.03	<0.05	<0.005	**0.054**	NL	<0.01
	11/10/2010	6010B	<0.02	0.062	<0.002	<0.006	<0.02	<0.005	0.04	<0.05	<0.005	**0.052**	<0.0002	<0.02
	9/21/2010	6010B	<0.02	0.071	<0.002	<0.006	<0.02	<0.005	0.068	<0.05	<0.005	**0.057**	<0.0002	<0.02
	3/15/2010	6010B	<0.02	0.046	<0.002	<0.006	<0.02	<0.005	0.013	<0.05	<0.005	**5.25E-02**	<0.0002	<0.02

DEFINITIONS

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

STANDARDS

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

NOTES

8.4.3 OW-1, OW-10

Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-1	11/27/2012	200.7/200.8	**1.2E-03**	0.033	<0.01	<5.0	<0.03	<0.03	<0.1	<0.025	<0.01	<5.0	0.004	<0.025	280	**0.043**	<0.05
	8/22/2012	200.7/200.8	<0.001	0.029	<0.002	2.4	<0.006	<0.006	<0.02	<0.005	8.6E-03	<1.0	3.6E-03	<0.005	330	**0.041**	0.011
	6/13/2012	200.7/200.8	<0.001	0.036	<0.002	2.1	<0.006	<0.006	<0.02	<0.005	6.7E-03	1.1	3.7E-03	<0.005	320	**0.043**	0.015
	3/22/2012	200.7/200.8	<0.001	0.034	<0.002	2.2	<0.006	<0.006	<0.02	<0.005	0.005	<1.0	3.7E-03	<0.005	330	**0.039**	0.027
	12/15/2011	200.7/200.8	<0.001	0.018	<0.002	<5.0	<0.006	<0.006	0.19	<0.005	0.013	<5.0	3.1E-03	<0.005	310	**0.043**	0.018
	10/27/2011	200.7/200.8	<0.001	0.035	<0.002	2.3	<0.006	<0.006	<0.02	<0.005	5.9E-03	<1.0	3.6E-03	<0.005	330	**0.04**	<0.01
	6/20/2011	200.7/200.8	**1.4E-03**	0.034	<0.002	2.0	<0.006	<0.006	<0.02	<0.005	4.5E-03	<1.0	6.2E-03	<0.005	340	**0.043**	0.048
	3/1/2011	200.7/200.8	<0.001	0.037	<0.002	2.1	<0.006	<0.006	<0.02	<0.005	4.1E-03	1.7	<0.05	<0.005	310	**0.032**	<0.01
	11/10/2010	6010B	<0.02	0.037	<0.002	2.2	<0.006	<0.006	<0.02	<0.005	4.6E-03	<1.0	<0.05	<0.005	300	**0.04**	<0.05
	9/21/2010	6010B	<0.02	0.029	<0.002	2.0	<0.006	<0.006	<0.02	<0.005	4.1E-03	<1.0	<0.05	<0.005	310	**0.038**	<0.05
	3/15/2010	6010B	<0.02	0.028	<0.002	2.0	<0.006	<0.006	<0.02	<0.005	<0.002	<1.0	<0.05	<0.005	280	**3.8E-02**	<0.05
OW-10	11/27/2012	200.7/200.8	**1.7E-03**	0.11	<0.01	310	<0.03	<0.03	<0.1	<0.025	0.13	<5.0	0.015	<0.025	1200	**0.078**	0.05
	8/22/2012	200.7/200.8	**0.001**	0.034	<0.002	29	<0.006	<0.006	<0.02	<0.005	<0.002	1	7.6E-03	<0.005	410	**0.05**	<0.01
	6/13/2012	200.7/200.8	<0.002	0.08	<0.002	160	<0.006	<0.006	<0.02	<0.005	0.053	1.9	0.014	<0.005	740	**0.067**	0.026
	3/22/2012	200.7/200.8	<0.001	0.033	<0.002	32	<0.006	<0.006	<0.02	<0.005	2.3E-03	<1.0	7.6E-03	<0.005	400	**0.048**	0.024
	12/15/2011	200.7/200.8	<0.001	0.038	<0.002	49	<0.006	<0.006	<0.02	<0.005	0.023	1.1	8.9E-03	<0.005	430	**0.056**	<0.01
	10/26/2011	200.7/200.8	**0.001**	0.043	<0.002	64	<0.006	<0.006	<0.02	<0.005	0.04	<1.0	7.9E-03	<0.005	500	**0.05**	<0.01
	6/20/2011	200.7/200.8	**0.002**	0.034	<0.002	34	<0.006	<0.006	<0.02	<0.005	5.5E-03	<1.0	0.015	<0.005	400	**0.052**	0.16
	2/28/2011	200.7/200.8	<0.001	0.044	<0.002	62	<0.006	<0.006	<0.02	<0.005	0.029	3	<0.05	<0.005	490	**0.055**	<0.01
	11/10/2010	6010B	<0.02	0.047	<0.002	62	<0.006	<0.006	<0.02	<0.005	0.03	1.4	<0.05	<0.005	460	**0.052**	<0.05
	9/21/2010	6010B	<0.02	0.064	<0.002	100	<0.006	<0.006	<0.02	<0.005	0.055	1.8	<0.05	<0.005	580	**0.051**	0.088
	3/15/2010	6010B	<0.02	0.044	<0.002	48	<0.006	<0.006	<0.02	<0.005	0.012	<1.0	<0.05	<0.005	420	**4.97E-02**	<0.05

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

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

NOTES

8.4.4 OW-1, OW-10

Volatile Organic Compound Analytical Result Summary

			Parameter		
			1,1-Dichloroethane (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	1,1-Dichloroethene (mg/L)
WQCC 20NMAC 6.2.3103			0.025	0.01	0.025
40 CFR 141.62 MCL (APR 2013)			NE	0.005	0.007
EPA RSL for Tap Water (NOV 2012)			2.4E-03	1.5E-03	0.26
Well ID	DATE SAMPLED	METHOD			
OW-10	11/27/2012	8260B	1.6E-03	1.1E-03	2.1E-03
	8/22/2012	8260B	<0.001		
	6/13/2012	8260B	<0.001		
	3/22/2012	8260B	<0.001		
	12/15/2011	8260B	<0.001		
	10/26/2011	8260B	<0.001		
	6/20/2011	8260B	1.3E-03		

DEFINITIONS

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

STANDARDS

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

NOTES

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
OW-13	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.011
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	9.2E-03
	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	7.9E-03
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	8.2E-03
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	6.5E-03
	10/25/2011	8260B	<0.001	<0.001	<0.001	<0.0015	6.2E-03
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	4.8E-03
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.004
	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.8E-03
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	3.1E-03
	6/7/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.7E-03
	3/25/2010	8021B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	11/3/2009	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	7/28/2009	8021B	<0.001	<0.001	<0.001	<0.0015	2.3E-03
	5/14/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	2/24/2009	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/13/2008	8260B	<0.001	<0.001	<0.001	<0.002	1.6E-03
	8/19/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.0015	1.3E-03
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
OW-14	11/27/2012	8260B	**2.7**	<0.01	**0.056**	<0.0015	**1.4**
	8/23/2012	8260B	**2.1**	<0.01	**0.037**	<0.015	**1.6**
	6/14/2012	8260B	**2.6**	<0.01	**0.053**	<0.015	**1.2**
	3/21/2012	8260B	**2.3**	<0.01	**0.051**	<0.015	**1.4**
	12/13/2011	8260B	**1.5**	<0.005	**0.036**	<0.0075	**1.3**
	10/24/2011	8260B	**1.4**	<0.005	**0.045**	<0.0075	**1.4**
	6/20/2011	8260B	**1.8**	1.5E-03	**0.061**	<0.0015	**1.6**
	2/24/2011	8260B	**1.3**	1.9E-03	**0.042**	<0.0015	**1.4**
	11/8/2010	8260B	**0.63**	<0.001	**0.018**	<0.0015	**1.3**
	9/22/2010	8260B	**0.47**	<0.001	8.3E-03	<0.0015	**1.4**
	6/7/2010	8260B	**0.33**	1.8E-03	8.5E-03	<0.0015	**1.4**
	3/24/2010	8260B	**0.25**	<0.005	0.01	<0.0075	**1.5**
	11/12/2009	8021B	**0.034**	0.003	6.4E-03	<0.002	**1.2**
	7/30/2009	8021B	**0.074**	3.3E-03	<0.001	<0.0015	**1.3**
	5/12/2009	8260B	**0.11**	2.9E-03	4.9E-03	<0.002	**0.97**
	2/23/2009	8260B	**0.013**	1.4E-03	5.5E-03	<0.001	**1.0**
	11/12/2008	8260B	**8.2E-03**	<0.001	<0.001	<0.0015	**0.91**
	8/21/2008	8260B	3.5E-03	<0.001	<0.001	<0.0015	**1.3**
	1/1/2008	8260B	**0.014**	<0.001	<0.001	<0.0015	**0.92**
	12/28/2006	8260B	**4.2E-03**	<0.001	2.5E-03	<0.003	**0.18**
	10/27/2006	8260B	3.4E-03	<0.001	<0.001	<0.003	0.016
OW-29	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.9**
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.0**

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	**DATE SAMPLED**	**METHOD**					
OW-29	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**0.62**
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.49**
	10/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.47**
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**0.3**
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.22**
	9/22/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.19**
	6/7/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.15**
	3/25/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**0.12**
	11/3/2009	8021B	<0.001	<0.001	<0.001	<0.002	0.082
	7/29/2009	8021B	<0.001	<0.001	<0.001	<0.0015	0.049
	5/14/2009	8260B	<0.001	<0.001	<0.001	<0.002	0.041
	2/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	0.021
	11/14/2008	8260B	<0.001	<0.001	<0.001	<0.0015	0.015
	8/19/2008	8206B	<0.001	<0.001	<0.001	<0.0015	9.2E-03
	12/28/2007	8260B	<0.001	<0.001	<0.001	<0.0015	4.3E-03
	10/24/2006	8260B	<0.001	<0.001	<0.001	<0.003	<0.0025
OW-30	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**2.2**
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**2.3**
	6/14/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.5**
	3/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	**1.6**
	12/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	10/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.3**
	2/24/2011	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	11/8/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	6/4/2010	8260B	<0.001	<0.001	<0.001	<0.0015	**1.0**
	3/24/2010	8260B	<0.005	<0.005	<0.005	<0.0075	**1.1**
	11/2/2009	8021B	<0.001	<0.001	<0.001	<0.002	**1.1**
	7/30/2009	8021B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	5/13/2009	8260B	<0.001	<0.001	<0.001	<0.002	**1.1**
	2/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	**1.0**

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
OW-30	11/12/2008	8260B	<0.001	<0.001	<0.001	<0.0015	**0.88**
	8/20/2008	8260B	<0.001	<0.001	<0.001	<0.0015	**1.1**
	12/28/2007	8260B	<0.001	<0.001	<0.001	<0.0015	**0.29**
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.003	<0.0025

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES

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

			Parameters								
			1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	1,1-Dichloroethane (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	Sec-butylbenzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**0.01**	**0.03**	**NE**	**0.025**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**0.005**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.015**	**1.5E-03**	**1.4E-03**	**9.7E-03**	**2.4E-03**	**0.39**	**0.78**	**0.53**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-13	11/27/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	6/14/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/13/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/25/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/8/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/3/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/28/2009	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	5/14/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/24/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/13/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-14	11/27/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.01	<0.01	<0.03	<0.01	<0.01
	8/23/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.01	<0.01	<0.03	<0.01	<0.01
	6/14/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	3/21/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	12/13/2011	8260B	<0.005	<0.005	<0.01	**0.021**	<0.005	7.1E-03	<0.005	<0.005	<0.005
	10/24/2011	8260B	<0.005	<0.005	<0.01	**0.022**	<0.005	8.2E-03	<0.005	<0.005	<0.005
	6/20/2011	8260B	1.1E-03	**1.7E-03**	**2.1E-03**	**0.02**	1.2E-03	6.8E-03	<0.001	2.1E-03	2.4E-03
	2/24/2011	8260B	1.3E-03	**1.6E-03**	<0.002	**0.019**	<0.001	4.8E-03	<0.001	1.3E-03	2.7E-03
	11/8/2010	8260B	1.2E-03	**1.5E-03**	<0.002	**0.022**	<0.001	3.7E-03	<0.001	<0.001	2.7E-03
	9/22/2010	8260B	<0.001	**2.2E-03**	<0.002	**0.022**	<0.001	2.9E-03	<0.001	<0.001	2.8E-03
	6/7/2010	8260B	1.1E-03	**1.5E-03**	<0.002	**0.02**	<0.001	2.6E-03	<0.001	<0.001	2.4E-03
	3/24/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005
	11/12/2009	8021B[1]	2.7E-03	NL	NL	NL	NL	NL	NL	NL	NL
	7/30/2009	8260B	<0.001	**1.7E-03**	<0.002	**0.021**	<0.001	3.3E-03	1.1E-03	<0.001	2.6E-03
	5/12/2009	8021B[1]	1.6E-03	NL	NL	NL	NL	NL	NL	NL	NL

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

			Parameters								
			1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	1,1-Dichloroethane (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	Sec-butylbenzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**0.01**	**0.03**	**NE**	**0.025**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**0.005**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.015**	**1.5E-03**	**1.4E-03**	**9.7E-03**	**2.4E-03**	**0.39**	**0.78**	**0.53**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-14	2/23/2009	8021B[1]	1.6E-03	NL	NL	NL	NL	NL	NL	NL	NL
	11/12/2008	8260B	<0.001	**1.8E-03**	<0.002	**0.016**	<0.001	1.5E-03	<0.001	<0.001	2.5E-03
	8/21/2008	8260B	<0.001	<0.001	<0.002	**0.012**	<0.001	1.6E-03	<0.001	<0.001	0.002
	1/1/2008	8260B	<0.001	<0.001	<0.002	**0.027**	<0.001	<0.001	0.052	<0.001	5.7E-03
	12/28/2006	8260B	<0.001	**1.8E-03**	<0.002	<0.004	**0.016**	<0.001	0.015	<0.001	2.5E-03
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-29	11/27/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/14/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/24/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/9/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/22/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/7/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/25/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/2/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/29/2009	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	5/13/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/24/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/14/2008	8260B	<0.001	1.0E-03	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/28/2007	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/24/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
OW-30	11/27/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.003	<0.001	<0.001
	6/14/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	3/21/2012	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/15/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/24/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	2/24/2011	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/8/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	6/4/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001

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

			Parameters								
			1,2,4-Trimethylbenzene (mg/L)	1,2-Dichloroethane (EDC) (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	1,1-Dichloroethane (mg/L)	Isopropylbenzene (mg/L)	n-Butylbenzene (mg/L)	n-Propylbenzene (mg/L)	Sec-butylbenzene (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**0.01**	**0.03**	**NE**	**0.025**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**0.005**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.015**	**1.5E-03**	**1.4E-03**	**9.7E-03**	**2.4E-03**	**0.39**	**0.78**	**0.53**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-30	3/24/2010	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	11/2/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	7/30/2009	8260B	<0.001	1.3E-03	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	5/13/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	2/23/2009	8021B[1]	<0.001	NL	NL	NL	NL	NL	NL	NL	NL
	11/12/2008	8260B	<0.001	1.3E-03	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	8/19/2008	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	12/28/2007	8260B	<0.001	1.2E-03	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.002	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001

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

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

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

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
OW-50	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/15/2011	8260B	<0.005	<0.005	<0.005	<0.0075	<0.005
	10/25/2011[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
OW-52	11/27/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/13/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/13/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/25/2011[2]	8021B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/20/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/1/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/9/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/27/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/1/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES
2) 10/25/2011 - Quarterly sampling was combined with the Annual Sampling event

8.6.1 OW-50, OW-52
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**												
OW-50	11/27/2012	300.0/8015B	0.54	28	<0.5	<1.0	<1.0	<2.5	160	8.28	1100	<1.0	<0.05	<5.0
	8/23/2012	300.0/8015B	0.42	26	0.22	<1.0	<1.0	<0.5	140	8.13	1100	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.54	27	0.27	<1.0	<1.0	<0.5	140	8.28	1000	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.59	27	0.22	<0.1	0.15	<0.5	150	8.35	1000	<1.0	<0.05	<5.0
	12/15/2011	300.0/8015B	0.49	25	0.19	<1.0	<1.0	<0.5	140	8.29	1100	<1.0	<0.05	
	10/25/2011[3]	300.0/8015B	0.49	26	0.15	NL	NL	<0.5	140	8.46	1100	<1.0	<0.05	
	6/20/2011	300.0/8015B	0.53	28	0.22	<0.1	<0.1	<0.5	150	8.67	1100	<1.0	<0.05	
	3/1/2011	300.0/8015B	0.49	26	0.2	<0.1	<0.1	<0.5	140	8.3	1000	<1.0	<0.05	
	11/9/2010	300.0/8015B	0.51	29	NL	<0.1	<0.1	<0.5	160	8.26	1100	<1.0	<0.05	
	9/27/2010	300.0/8015B	0.41	26	NL	<0.1	<0.1	<0.5	140	NA	NA	<1.0	<0.05	
	6/1/2010	300.0/8015B	0.53	27	0.22	<0.1	<0.1	<0.5	140	8.35	1000	<1.0	<0.05	
	3/16/2010	300.0/8015B	0.53	29	0.22	<0.1	<0.1	<0.5	150	8.34	1000	<1.0	<0.05	
	11/17/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
OW-52	11/27/2012	300.0/8015B	0.64	28	<0.5	<1.0	<1.0	<2.5	140	8.34	970	<1.0	<0.05	<5.0
	8/23/2012	300.0/8015B	0.49	25	0.16	<1.0	<1.0	<0.5	120	8.33	1000	<1.0	<0.05	<5.0
	6/13/2012	300.0/8015B	0.58	27	0.19	<1.0	<1.0	<0.5	140	8.36	960	<1.0	<0.05	<5.0
	3/22/2012	300.0/8015B	0.56	26	0.17	<0.1	<0.1	<0.5	130	8.35	990	<1.0	<0.05	<5.0
	12/13/2011	300.0/8015B	<0.5	27	0.17	<1.0	<1.0	<0.5	130	8.47	1000	<1.0	<0.05	
	10/25/2011[3]	300.0/8015B	0.4	20	<0.1	1.3	1.3	<0.5	100	8.43	940	<1.0	<0.05	
	6/20/2011	300.0/8015B	0.56	24	0.19	<0.1	<0.1	<0.5	140	8.66	1100	<1.0	<0.05	
	3/1/2011	300.0/8015B	0.57	25	0.17	<0.1	<0.1	<0.5	130	8.42	990	<1.0	<0.05	
	11/9/2010	300.0/8015B	0.54	32	0.17	<0.1	<0.1	<0.5	140	8.27	1000	<1.0	<0.05	
	9/27/2010	300.0/8015B	0.52	27	NL	<0.1	<0.1	<0.5	140	NA	NA	<1.0	<0.05	
	6/1/2010	300.0/8015B	0.52	28	NL	<0.1	<0.1	<0.5	140	8.25	990	<1.0	<0.05	
	3/16/2010	300.0/8015B	0.56	31	0.18	<0.1	<0.1	<0.5	150	8.23	990	<1.0	<0.05	
	11/17/2009	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	

8.6.1 OW-50, OW-52

General Chemistry and DRO/GRO Analytical Result Summary

	Parameters											
	Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103	1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE	0.2[1]	NE	NE
40 CFR 141.62 MCL (APR 2013)	4.0	NE	NE	10	10	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)	0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE	NE	NE	NE
Well ID / DATE SAMPLED / METHOD												

DEFINITIONS

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

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 6 (unknown oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (June 2012)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.
3) 10/25/2011 - Quarterly sampling was combined with the Annual Sampling event
Hall Laboratory analysis indicates that there was a constituent detected in the field blank submitted of 0.002mg/L of Toluene on 10-25-11.

8.6.2 OW-50, OW-52

Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**0.071**	**6.26E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**													
OW-50	11/27/2012	200.7/200.8	<0.0025	0.12	<0.002	<0.006	<0.006	**1.3**	<0.005	0.12	<0.0025	<0.005	<0.0002	9.6E-03	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.043	<0.002	<0.006	8.6E-03	0.071	<0.005	0.058	<0.0025	<0.005	<0.0002	0.008	0.011
	6/13/2012	200.7/200.8	<0.0025	0.081	<0.002	<0.006	<0.006	0.89	<0.005	0.1	<0.0025	<0.005	<0.0002	7.4E-03	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	<0.006	0.31	<0.005	0.035	<0.0025	<0.005	<0.0002	0.011	<0.01
	12/15/2011	200.7/200.8	<0.0025	0.07	<0.002	<0.006	<0.006	0.51	<0.005	0.095	<0.0025	<0.005	<0.0002	8.7E-03	<0.01
	10/25/2011[1]	200.7/200.8	<0.0025	0.041	<0.002	<0.006	<0.006	0.022	<0.005	0.082	<0.0025	<0.005	<0.002	7.2E-03	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.046	<0.002	<0.006	<0.006	0.16	<0.005	0.085	<0.0025	<0.005	<0.002	7.1E-03	<0.01
	3/1/2011	200.7/200.8	**0.003**	0.045	<0.002	<0.006	<0.006	0.24	<0.005	0.086	<0.05	<0.005	<0.0002	7.2E-03	<0.01
	11/9/2010	200.7/200.8	**3.1E-03**	0.038	<0.002	<0.006	<0.006	<0.02	<0.005	0.079	5.5E-03	<0.005	<0.0002	NL	0.02
	9/27/2010	6010B	<0.02	0.041	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	0.006	<0.02
	6/1/2010	6010B	<0.02	0.042	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	<0.02
	3/16/2010	6010B	<0.02	0.038	<0.002	<0.006	<0.006	<0.05	<0.005	0.079	<0.05	<0.005	<0.0002	6.26E-03	<0.02
	11/17/2009	6010B	<0.02	0.042	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL
OW-52	11/27/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	<0.006	0.15	<0.005	0.029	<0.0025	<0.005	<0.0002	0.011	<0.01
	8/23/2012	200.7/200.8	<0.0025	0.029	<0.002	<0.006	0.014	0.3	<0.005	0.026	<0.0025	<0.005	<0.0002	7.6E-03	0.012
	6/13/2012	200.7/200.8	<0.0025	0.028	<0.002	<0.006	<0.006	0.17	<0.005	0.027	<0.0025	<0.005	<0.0002	0.01	<0.01
	3/22/2012	200.7/200.8	<0.0025	0.072	<0.002	<0.006	<0.006	0.52	<0.005	0.094	<0.0025	<0.005	<0.0002	7.6E-03	<0.01
	12/13/2011	200.7/200.8	<0.0025	0.034	<0.002	6.9E-03	<0.006	0.43	<0.005	0.039	<0.0025	<0.005	<0.0002	0.01	<0.01
	10/25/2011[1]	200.7/200.8	<0.0025	0.025	<0.002	<0.006	<0.006	0.13	<0.005	0.032	<0.0025	<0.005	<0.0002	0.01	<0.01
	6/20/2011	200.7/200.8	<0.0025	0.026	<0.002	<0.006	<0.006	0.011	<0.005	0.036	<0.0025	<0.005	<0.002	0.012	<0.01
	3/1/2011	200.7/200.8	<0.0025	0.027	<0.002	<0.006	<0.006	0.35	<0.005	0.044	<0.05	<0.005	NL	3.6E-03	<0.01
	11/19/2010	200.7/200.8	<0.0025	0.026	<0.002	<0.006	<0.006	0.056	<0.005	0.028	4.6E-03	<0.005	<0.0002	NL	<0.01
	9/27/2010	6010B	<0.02	0.025	<0.002	<0.006	<0.006	0.065	<0.005	0.03	<0.05	<0.005	<0.0002	0.01	<0.02
	6/1/2010	6010B	<0.02	0.024	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL
	3/16/2010	6010B	<0.02	0.027	<0.002	<0.006	<0.006	0.15	<0.005	0.032	<0.05	<0.005	<0.0002	1.03E-02	<0.02
	11/17/2009	6010B	<0.02	0.027	<0.002	<0.006	NL	NL	<0.005	NL	<0.05	<0.005	<0.0002	NL	NL

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

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

NOTES
1) *10/25/2011 - Quarterly sampling was combined with the Annual Sampling event*
Hall Laboratory analysis indicates that there was a constituent detected in the field blank submitted of 0.002mg/L of Toluene ON 10-25-11.

8.6.3 OW-50, OW-52

Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-50	11/27/2012	200.7/200.8	**1.9E-03**	0.052	<0.002	21	<0.006	<0.006	0.41	<0.005	0.093	<1.0	<0.001	<0.005	220	9.3E-03	0.012
	8/23/2012	200.7/200.8	**1.9E-03**	0.04	<0.002	22	<0.006	<0.006	<0.02	<0.005	0.051	<1.0	<0.001	<0.005	230	7.7E-03	0.014
	6/13/2012	200.7/200.8	**1.9E-03**	0.041	<0.002	21	<0.006	<0.006	<0.02	<0.005	0.081	<1.0	<0.001	<0.005	240	8.5E-03	0.012
	3/22/2012	200.7/200.8	**1.9E-03**	0.041	<0.002	22	<0.006	<0.006	<0.02	<0.005	0.082	<1.0	<0.001	<0.005	250	7.6E-03	0.039
	12/15/2011	200.7/200.8	**1.8E-03**	0.04	<0.002	22	<0.006	<0.006	<0.1	<0.005	0.079	<5.0	<0.001	<0.005	220	8.1E-03	<0.01
	10/25/2011[1]	200.7/200.8	**1.9E-03**	0.041	<0.002	22	<0.006	<0.006	<0.02	<0.005	0.082	<1.0	<0.001	<0.005	240	7.4E-03	<0.01
	6/20/2011	200.7/200.8	**2.2E-03**	NL	<0.002	24	<0.006	NL	<0.02	<0.005	0.088	<1.0	1.3E-03	<0.005	250	7.5E-03	0.021
	3/1/2011	200.7/200.8	**2.6E-03**	0.039	<0.002	21	<0.006	<0.006	<0.02	<0.005	0.082	<1.0	<0.05	<0.005	230	6.9E-03	0.081
	11/9/2010	200.7/200.8	NL	0.037	<0.002	NL	<0.006	<0.006	<0.02	<0.005	0.078	<1.0	1.4E-03	<0.005	NL	NL	<0.01
	9/27/2010	6010B	<0.02	0.04	<0.002	21	<0.006	<0.006	<0.02	<0.005	0.081	<1.0	<0.05	<0.005	220	0.006	0.064
	6/1/2010	6010B	<0.02	0.04	<0.002	20	<0.006	<0.006	<0.02	<0.005	0.083	<1.0	<0.05	<0.005	220	NL	<0.05
	3/16/2010	6010B	<0.02	0.036	<0.002	19	<0.006	<0.006	<0.02	<0.005	0.076	<1.0	<0.05	<0.005	210	6.41E-03	<0.05
OW-52	11/27/2012	200.7/200.8	<0.001	0.027	<0.002	4.2	<0.006	<0.006	0.066	<0.005	0.025	1.2	<0.001	<0.005	220	1.10E-02	0.011
	8/23/2012	200.7/200.8	<0.001	0.022	<0.002	4.4	<0.006	<0.006	<0.02	<0.005	5.4E-03	1.5	<0.001	<0.005	250	7.60E-03	0.039
	6/13/2012	200.7/200.8	<0.001	0.026	<0.002	4.2	<0.006	<0.006	0.076	<0.005	0.023	1.4	<0.001	<0.005	230	1.10E-02	0.023
	3/22/2012	200.7/200.8	<0.001	0.025	<0.002	4.2	<0.006	<0.006	0.071	<0.005	0.03	1.2	<0.001	<0.005	250	0.01	0.084
	12/13/2011	200.7/200.8	<0.001	0.025	<0.002	4.1	<0.006	<0.006	0.08	<0.005	0.025	1.1	<0.001	<0.005	210	0.01	<0.01
	10/25/2011[1]	200.7/200.8	<0.001	0.025	<0.002	4.2	<0.006	<0.006	0.12	<0.005	0.031	1.1	<0.001	<0.005	240	0.011	<0.01
	6/20/2011	200.7/200.8	<0.001	NL	<0.002	5.2	<0.006	NL	0.12	<0.005	0.037	1.2	1.5E-03	<0.005	240	0.013	0.024
	3/1/2011	200.7/200.8	<0.001	0.36	<0.02	93	<0.006	<0.006	0.064	<0.005	**0.68**	2.3	<0.05	<0.005	490	7.1E-03	<0.01
	11/9/2010	200.7/200.8	NL	0.025	<0.02	4.2	<0.006	<0.006	0.048	<0.005	0.027	1.2	NL	<0.005	240	NL	<0.01
	9/27/2010	6010B	<0.02	0.026	<0.002	4.3	<0.006	<0.006	0.058	<0.005	0.031	1.2	<0.05	<0.005	230	0.009	0.079
	6/1/2010	6010B	<0.02	0.026	<0.002	4.0	<0.006	<0.006	0.058	<0.005	0.032	1.2	<0.05	<0.005	230	9.26E-03	<0.05
	3/16/2010	6010B	<0.02	0.023	<0.002	3.9	<0.006	<0.006	0.034	<0.005	0.028	1.1	<0.05	<0.005	230	9.2E-03	<0.05

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

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

NOTES:
1) *10/25/2011 - Quarterly sampling was combined with the Annual Sampling event*
Hall Laboratory analysis indicates that there was a constituent detected in the field blank submitted of 0.002mg/L of Toluene on 10-25-11.

8.6.4 OW-50, OW-52
Semi Volatile Organic Compound Analytical Result Summary

			Parameters	
			Benzoic Acid (mg/L)	Bis(2-ethylhexyl)phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	0.006
EPA RSL for Tap Water (NOV 2012)			58	0.048
Well ID	DATE SAMPLED	METHOD		
OW-50	12/5/2012[2]	8270C	<0.02	<0.01
	8/23/2012	8270C	<0.02	<0.01
	6/13/2012	8270C	<0.02	<0.01
	3/22/2012	8270C	<0.02	<0.01
	12/15/2011	8270C	<0.02	<0.01
	10/25/2011[1]	8270C	<0.02	<0.01
	6/20/2011	8270C	<0.02	<0.01
	3/1/2011	8270C	<0.02	<0.01
	11/9/2010	8270C	<0.02	<0.01
	9/27/2010	8270C	<0.02	<0.01
	6/1/2010	8270C	<0.02	<0.01
	3/16/2010	8270C	0.02	**0.011**
	11/17/2009	8270C	<0.02	<0.01

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

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

NOTES
1) 10/25/2011 - Quarterly sampling was combined with the Annual Sampling event Hall Laboratory analysis indicates that there was a constituent detected in the field blank submitted of 0.002 mg/L of Toluene on 10-25-11.
2) Sampled for 8270C only. Samples not collected for this analysis during the 4th quarter sampling.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-04	0.86	1.3E-03	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
GWM-1	11/28/2012	8260B	<0.01	<0.01	<0.01	<0.015	0.052
	8/21/2012	8260B	**7.8E-03**	2.4E-03	**3.5E-03**	1.5E-03	0.044
	6/12/2012	8260B	**5.3E-03**	1.4E-03	**2.5E-03**	9.4E-03	0.04
	3/20/2012	8260B	**5.7E-03**	<0.001	**1.9E-03**	0.007	0.054
	12/14/2011	8260B	**8.5E-03**	1.9E-03	**4.2E-03**	0.014	0.054
	9/26/2011[4]	8260B	**9.6E-03**	5.2E-03	**5.9E-03**	0.03	0.051
	6/15/2011	8260B	**7.4E-03**	2.7E-03	**5.3E-03**	0.026	0.047
	2/16/2011	8260B	**9.5E-03**	3.4E-03	**5.4E-03**	0.023	0.057
	11/2/2010	8260B	**6.9E-03**	2.3E-03	**3.5E-03**	0.022	0.062
	9/16/2010	8260B	**7.5E-03**	4.9E-03	**6.7E-03**	0.03	0.053
	7/20/2010	8260B	**0.008**	0.002	**6.8E-03**	0.03	0.077
	3/3/2010[2]	8260B	**0.012**	0.005	**0.011**	0.05	0.078
	7/27/2009	8260B	**8.9E-03**	0.002	**7.4E-03**	0.034	0.085
	7/10/2008	8260B	**0.011**	2.1E-03	**3.9E-03**	0.019	**0.12**
	5/24/2007	8260B	**0.016**	<0.001	<0.001	<0.003	**0.23**
	10/27/2006	8260B	**0.012**	<0.001	<0.001	<0.003	**0.16**
GWM-2[3]	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	2.6E-03
	6/12/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	3/20/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.001	2.7E-03
	9/26/2011[4]	8021b	<0.001	<0.001	<0.001	<0.0015	2.6E-03
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.003
	2/16/2011	8260B	<0.001	<0.001	<0.001	<0.0015	8.3E-03
	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.011
	2/28/2010	8260B	<0.001	<0.001	<0.001	<0.0015	0.028
GWM-3[3]	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	1.5E-03
	6/12/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	3/20/2012	8021B	<0.005	<0.005	<0.005	<0.01	<0.012
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/26/2011[4]	8021b	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.002
	2/16/2011	8260B	<0.001	<0.001	<0.001	<0.0015	8.1E-03
	10/4/2010	8260B	<0.001	<0.001	<0.001	<0.003	9.2E-03
	9/16/2010	8260B	<0.001	<0.001	<0.001	<0.003	0.009

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-04	0.86	1.3E-03	0.19	0.0125[1]
Well ID	DATE SAMPLED	METHOD					

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards: b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES:
2) GWM-1 sample schedule is on an annual basis. For this sampling period, technician used the unapproved Facility Work Plan (FWP) at the beginning of 2010. which called for this well to be sampled on a quarterly basis. The FWP was approved on August 25, 2010.
3) GWM-2 and GWM-3 are normally dry wells. During inspection of well, water was present and subsequently well was sampled and purged dry.

8.7.1 GWM-1, GWM-2, GWM-3
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE	0.2[1]	NE	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	1.0	10	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.62	NE	NE	1.6	25	3.1E-04	NE	NE	NE	NE	NE	NE
Well ID	DATE SAMPLED	METHOD												
GWM-1	11/28/2012	300.0/8015B	3.2	1000	7.2	<0.5	<0.5	<2.5	150	NA	NA	1.6	1.1	<5.0
	8/21/2012	300.0/8015B	3.0	1200	2.5	<0.5	<0.5	<2.5	140	NA	NA	<1.0	1.2	<5.0
	6/12/2012	300.0/8015B	3.4	1300	3.5	<0.5	<0.5	<2.5	140	NA	NA	<1.0	1.2	<5.0
	3/20/2012	300.0/8015B	3.6	1200	3.2	<0.5	<0.5	<2.5	130	NA	NA	3.5	1	<5.0
	12/14/2011	300.0/8015B	1.2	1300	2.5	<1.0	<1.0	<10	54	NA	NA	2.9	0.81	
	9/26/2011	300.0/8015B	3.5	1300	1.5	<4.0	<4.0	<2.5	47	NA	NA	3.9	0.65	
	6/15/2011	300.0/8015B	2.6	1200	2.6	<2.0	<2.0	<2.5	64	NA	NA	4.0	0.53	
	2/16/2011	300.0/8015B	2.8	1400	2.5	2.1	2.1	<0.5	47	NA	NA	5.4	0.7	
	11/2/2010	300.0/8015B	3.5	1300	NL	<1.0	<1.0	<5.0	26	NA	NA	6.0	0.68	
	9/16/2010	300.0/8015B	2.9	1400	NL	<4.0	<4.0	<5.0	48	NA	NA	7.7	0.71	
	7/20/2010	300.0	2.9	1500	2.6	<4.0	<4.0	<2.5	57	7.18	6400	NA	NA	
	3/3/2010[3]	300.0/8015B	2.1	1600	2.7	<4.0	<4.0	<0.5	88	NA	NA	3.9	0.88	
	7/27/2009	300.0	2.1	1600	NL	<4.0	<4.0	<0.5	73	7.03	6200	NA	NA	
	7/10/2008	300.0	1.7	1800	NL	<2.0	<2.0	<0.5	110	6.92	7400	NA	NA	
	5/24/2007	300.0	1.9	1800	NL	<2.0	<2.0	<0.5	120	NL	NL	NL	NL	
	10/26/2006	300.0	2.0	3700	NL	<2.0	<2.0	<2.5	120	6.87	NA	NA	NA	
GWM-2[4]	11/28/2012	300.0/8015B	3.8	1000	7.5	<0.5	15	<2.5	1500	NA	NA	<1.0	<0.5	<5.0
	8/21/2012	300.0/8015B	2.8	1200	3.4	<0.5	14	<2.5	1400	NA	NA	<1.0	<0.25	<5.0
	6/12/2012	300.0/8015B	3.5	1200	4.0	<0.5	24	<2.5	1400	NA	NA	<1.0	<0.25	<5.0
	3/20/2012	300.0/8015B	3.6	1500	4.4	<0.5	38	<2.5	1300	NA	NA	2.4	<0.25	NL
	12/14/2011	300.0/8015B	0.48	2100	4.0	25	25	<10	1000	NA	NA	<1.0	<0.05	
	9/26/2011	300.0/8015B	1.6	2200	4.9	52	52	<2.5	1200	NA	NA	<1.0	<0.05	
	6/15/2011	300.0/8015B	3.1	2200	4.9	66	66	<2.5	1100	NA	NA	<1.0	<0.05	
	2/16/2011	300.0/8015B	0.43	910	3.3	2.6	2.6	<0.5	660	NA	NA	<1.0	<0.05	
	10/4/2010	300.0/8015B	0.52	1800	3.4	<4.0	<4.0	<0.5	740	NA	NA	<1.0	<0.05	
	9/16/2010	300.0/8015B	0.46	1400	NL	<4.0	<4.0	<5.0	700	NA	NA	<1.0	<0.05	
	2/28/2008	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
GWM-3[4]	11/28/2012	300.0/8015B	5.6	1200	7.8	<0.5	8.8	<2.5	1500	NA	NA	<1.0	0.088	<5.0
	8/21/2012	300.0/8015B	4.9	1200	2.5	<0.5	43	<10	1500	NA	NA	<1.0	<0.25	<5.0
	6/12/2012	300.0/8015B	4.4	1400	3.5	<0.5	6.2	<2.5	1400	NA	NA	<1.0	<0.25	<5.0
	3/20/2012	300.0/8015B	4.9	1300	2.8	<0.5	18	<2.5	1600	NA	NA	2.7	<0.25	NL
	12/14/2011	300.0/8015B	5.0	1400	2.5	51	51	<10	1800	NA	NA	1.3	<0.05	
	9/26/2011	300.0/8015B	5.3	1000	2.5	130	130	<2.5	2500	NA	NA	2.7	<0.05	
	6/15/2011	300.0/8015B	5.5	610	2.3	<2.0	<2.0	<2.5	1900	NA	NA	1.1	0.12	
	2/16/2011	300.0/8015B	4.2	1100	2.1	61	61	<0.5	1900	NA	NA	<1.0	<0.05	
	10/4/2010	300.0/8015B	5.9	1800	2.3	61	61	<0.5	1500	NA	NA	1.3	0.12	
	9/16/2010	300.0/8015B	4.7	2000	NL	66	66	<5.0	1500	NA	NA	3.7	0.066	

8.7.1 GWM-1, GWM-2, GWM-3
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE	0.2[1]	NE	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	1.0	10	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.62	NE	NE	1.6	25	3.1E-04	NE	NE	NE	NE	NE	NE
Well ID	DATE SAMPLED	METHOD												

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
1) NMED Table 6 (unknown oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (Jun 2013)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.
3) GWM-1 sample schedule is on an annual basis. For this sampling period, technician used the unapproved Facility Work Plan (FWP) at the beginning of 2010. which called for this well to be sampled on a quarterly basis. The FWP was approved on August 25, 2010.
4) GWM-2 and GWM-3 are normally dry wells. During inspection of wells, water was present and samples were collected.

8.7.2 GWM-1, GWM-2, GWM-3
Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.50E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**6.30E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
GWM-1	11/28/2012	200.7/200.8	**0.092**	0.73	<0.002	NL	<0.006	0.021	**10**	0.012	NL	**2.7**	NL	4.9E-03	NL	<0.0002	0.016	0.021
	8/21/2012	200.7/200.8	**0.09**	**1.1**	<0.002	NL	<0.006	9.1E-03	**9.8**	5.6E-03	NL	**3.1**	NL	7.5E-03	NL	<0.0002	5.2E-03	0.019
	6/12/2012	200.7/200.8	**0.066**	0.84	<0.002	NL	<0.006	<0.006	**8.7**	0.011	NL	**2.7**	NL	9.3E-03	NL	<0.001	0.011	0.019
	3/20/2012	200.7/200.8	**0.073**	**1.1**	<0.002	NL	<0.006	<0.006	**8.9**	5.8E-03	NL	**3.0**	NL	0.01	NL	<0.001	6.9E-03	0.016
	12/14/2011	200.7/200.8	**0.097**	0.67	<0.002	<10	<0.006	0.029	**15**	**0.023**	2.5	**2.5**	4.0	4.7E-03	1100	<0.002	0.02	0.041
	9/26/2011[2]	200.7/200.8	**0.12**	**1.5**	<0.002	290	<0.006	<0.006	**17**	<0.005	67	**2.8**	3.2	8.2E-03	1100	<0.0002	0.007	0.025
	6/15/2011	200.7/200.8	**0.14**	**1.5**	<0.002	NL	<0.006	<0.006	**17**	0.01	NL	**2.8**	NL	0.015	NL	<0.0002	8.4E-03	0.026
	2/16/2011	200.7/200.8	**0.16**	0.94	<0.002	310	8.9E-03	8.9E-03	**17**	9.8E-03	71	**3.0**	4.3	0.02	1200	<0.0002	0.015	0.038
	11/2/2010	6010B	**0.14**	**1.4**	<0.002	NL	<0.006	<0.006	**7.9**	9.5E-03	NL	**3.0**	NL	<0.05	NL	<0.0002	0.009	0.025
	9/16/2010	6010B	**0.12**	0.87	<0.002	NL	<0.006	9.8E-03	**15**	0.012	NL	**2.9**	NL	<0.05	NL	<0.0002	0.015	0.023
	7/20/2010	6010B	**0.16**	**1.2**	<0.002	NL	<0.006	0.019	**20**	0.011	NL	**3.0**	NL	<0.05	NL	<0.0002	0.011	0.031
	3/3/2010[1]	6010B	**0.098**	0.42	<0.002	NL	<0.006	7.2E-03	**15**	7.8E-03	NL	**3.0**	NL	<0.05	NL	<0.0002	2.24E-02	0.03
	7/27/2009	6010B	**0.114**	0.53	<0.002	310	<0.006	<0.006	**14**	7.2E-03	78	**3.2**	3.0	<0.001	1300	<0.0002	1.59E-02	0.025
	7/10/2008	6010B	**0.07**	0.45	<0.002	350	<0.006	0.014	**14**	0.01	81	**3.6**	3.3	<0.05	1400	<0.0002	NL	<0.05
	5/24/2007	6010B	**0.081**	0.44	<0.002	360	<0.006	NL	NL	<0.005	87	NL	3.7	<0.05	1300	<0.0002	NL	NL
	10/26/2006	6010B	**0.077**	0.53	<0.002	380	<0.006	NL	NL	NL	93	NL	4.2	NL	1400	<0.0002	NL	NL
GWM-2[3]	8/21/2012	200.7/200.8	**6.6E-03**	0.04	<0.002	NL	<0.006	0.045	0.44	7.1E-03	NL	**0.45**	NL	9.9E-03	NL	<0.0002	**0.12**	0.025
GWM-3[3]	8/21/2012	200.7/200.8	**3.3E-03**	0.04	<0.002	NL	<0.006	0.22	**1.7**	**0.07**	NL	**1.0**	NL	9.2E-03	NL	<0.0002	**0.067**	0.47

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

NOTES

1) Used unapproved Facility Work Plan (FWP) at beginning of year which required quarterly sampling. This well is sampled on an annual basis.

2) 9/26/2011 Quarterly sampling combined with Annual sampling event

3) As part of the Annual sampling requirement - Metals (Total and Dissolved) were analyzed.

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**0.005**	**NE**	**0.1**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**6.9E-03**	**NE**	**NE**	**0.62**	**11**	**NE**	**NE**	**0.32**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
GWM-1	11/28/2012	200.7/200.8	**0.084**	0.83	<0.002	280	<0.006	<0.006	**8.7**	3.7E-03	71	**2.9**	2.6	5.5E-03	1000	0.019	0.11
	8/21/2012	200.7/200.8	**0.082**	**1.1**	<0.002	320	<0.006	<0.006	**6.8**	<0.005	75	**3.1**	4.1	7.6E-03	990	3.8E-03	0.03
	6/12/2012	200.7/200.8	**0.054**	**1.1**	<0.002	290	<0.006	<0.006	**4.0**	<0.005	68	**2.9**	2.9	9.9E-03	980	5.5E-03	0.016
	3/20/2012	200.7/200.8	**0.073**	0.97	<0.002	320	<0.006	<0.006	**9.4**	5.2E-03	75	**3.0**	2.5	9.6E-03	1100	0.006	0.067
	12/14/2011	200.7/200.8	**0.088**	0.52	<0.01	280	<0.03	<0.03	**11**	<0.025	65	**2.3**	<5.0	6.7E-03	1200	0.02	<0.05
	9/26/2011	200.7/200.8	**0.12**	**1.3**	<0.002	300	<0.006	<0.006	**14**	<0.005	71	**2.7**	<5.0	0.012	1200	8.1E-03	0.028
	6/15/2011	200.7/200.8	**0.1**	**1.4**	<0.01	270	<0.03	<0.03	**14**	<0.025	65	**2.7**	<5.0	0.025	1000	7.5E-03	0.063
	2/16/2011	200.7/200.8	**0.15**	0.95	<0.01	310	<0.03	<0.03	**14**	<0.025	73	**2.9**	6.4	0.014	1200	0.013	<0.05
	11/2/2010	6010B	<0.2	**1.3**	<0.002	330	<0.006	<0.006	**5.2**	9.4E-03	75	**3.0**	2.9	<0.05	1100	0.007	NL
	9/16/2010[3]	6010B	**0.12**	**1.2**	<0.002	310	<0.006	<0.006	**15**	8.6E-03	76	**2.9**	2.8	<0.25	1200	0.01	NL
	7/20/2010[2]	6010B	**0.15**	**1.1**	<0.002	310	<0.006	<0.006	**14**	5.6E-03	70	**2.9**	3.1	<0.05	1200	NL	<0.05
	3/2/2010[1]	6010B	**0.074**	0.38	<0.002	280	<0.006	<0.006	**12**	8.4E-03	57	**2.7**	2.9	<0.05	1200	0.028	0.059
GWM-2[3]	11/28/2012	CATIONS	NA	NA	NA	370	NA	NA	**NA**	NA	81	NA	2.9	NA	1300	NA	NA
	8/21/2012[4]	200.7/200.8	**6.9E-03**	0.033	<0.002	430	<0.006	0.041	0.13	1.2E-02	82	**0.55**	4.2	0.012	1300	**0.12**	0.039
	6/12/2012	CATIONS	NA	NA	NA	420	NA	NA	NA	NA	79	NA	2.8	NA	1400	NA	NA
	3/20/2012	CATIONS	NA	NA	NA	620	NA	NA	NA	NA	120	NA	4.1	NA	1500	NA	NA
	12/14/2011	CATIONS	NA	NA	NA	530	NA	NA	NA	NA	95	NA	2.9	NA	1500	NA	NA
	9/26/2011	CATIONS	NA	NA	NA	620	NA	NA	NA	NA	110	NA	4.2	NA	1600	NA	NA
	6/15/2011	CATIONS	NA	NA	NA	570	NA	NA	NA	NA	120	NA	4.2	NA	1600	NA	NA
	2/16/2011	CATIONS	NA	NA	NA	460	NA	NA	NA	NA	74	NA	3.7	NA	1000	NA	NA
	10/4/2010	CATIONS	NA	NA	NA	420	NA	NA	NA	NA	77	NA	3.0	NA	910	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GWM-3[3]	11/28/2012	CATIONS	NA	NA	NA	340	NA	NA	NA	NA	70	NA	4.3	NA	1200	NA	NA
	8/21/2012[4]	200.7/200.8	<0.005	0.029	<0.002	390	<0.006	0.23	0.88	**0.063**	75	**1.7**	4.9	9.9E-03	1200	**0.066**	0.46
	6/12/2012	CATIONS	NA	NA	NA	400	NA	NA	NA	NA	78	NA	<10	NA	1300	NA	NA
	3/20/2012	CATIONS	NA	NA	NA	480	NA	NA	NA	NA	87	NA	3.7	NA	1400	NA	NA
	12/14/2011	CATIONS	NA	NA	NA	440	NA	NA	NA	NA	79	NA	4.6	NA	1300	NA	NA
	9/26/2011	CATIONS	NA	NA	NA	500	NA	NA	NA	NA	91	NA	5.1	NA	1300	NA	NA
	6/15/2011	CATIONS	NA	NA	NA	470	NA	NA	NA	NA	83	NA	5.7	NA	1200	NA	NA
	2/16/2011	CATIONS	NA	NA	NA	450	NA	NA	NA	NA	81	NA	7.9	NA	1200	NA	NA
	10/4/2010	CATIONS	NA	NA	NA	450	NA	NA	NA	NA	89	NA	7.6	NA	1300	NA	NA
	9/16/2010	CATIONS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.01	NE	0.05	1.0	1.0	0.05	NE	0.2	NE	0.05	NE	0.03	10.0
40 CFR 141.62 MCL (APR 2013)			0.01	2.0	0.005	NE	0.1	1.3	NE	0.015	NE	NE	NE	0.05	NE	0.03	NE
EPA RSL for Tap Water (NOV 2012)			4.5E-05	2.9	6.9E-03	NE	NE	0.62	11	NE	NE	0.32	NE	0.078	NE	0.047	4.7
Well ID	DATE SAMPLED	METHOD															

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

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

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

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

Volatile and Semi-Volatile Organic Compound Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	2,4-Dimethyl phenol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.015**	**0.087**	**1.4E-04**	**9.7E-04**	**0.027**	**12**	**NE**	**0.78**	**NE**	**0.27**
Well ID	**DATE SAMPLED**	**METHOD**										
GWM-1	11/28/2012	8260B	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01	<0.03	<0.01	NL
	8/21/2012	8260B/8270C	9.7E-03	1.9E-03	<0.002	**0.013**	<0.004	<0.01	1.1E-03	<0.003	2.2E-03	0.032
	6/12/2012	8260B	4.9E-03	<0.001	<0.002	**6.3E-03**	<0.004	0.011	<0.001	<0.001	1.6E-03	NL
	3/20/2012	8260B	1.8E-03	<0.001	<0.002	<0.004	<0.004	0.011	<0.001	<0.001	1.1E-03	NL
	12/14/2011	8260B	0.004	<0.001	<0.002	**5.2E-03**	<0.004	<0.01	1.3E-03	<0.001	2.2E-03	NL
	9/26/2011[4]	8260B	**0.019**	2.9E-03	**4.4E-03**	**0.028**	<0.004	<0.01	1.9E-03	<0.01	2.7E-03	NL
	6/15/2011	8260B	**0.018**	3.1E-03	**5.5E-03**	**0.024**	6.2E-03	<0.01	1.8E-03	<0.01	2.8E-03	NL
	2/16/2011	8260B	0.008	<0.001	<0.002	**0.01**	<0.004	<0.01	1.4E-03	<0.001	1.8E-03	NL
	11/2/2010	8260B	7.5E-03	<0.001	<0.02	**0.011**	<0.004	<0.01	<0.001	1.6E-03	1.2E-03	NL
	9/16/2010[3]	8260B	0.012	1.9E-03	NA	NA	NA	NA	NA	NA	NA	NA
	7/20/2010[2]	8260B/8270C	0.013	<0.001	**3.5E-03**	**7.2E-03**	<0.004	0.012	1.6E-03	1.9E-03	1.5E-03	0.052
	3/3/2010[1]	8260B	8.1E-03	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005	<0.005	<0.005	NL
	7/27/2009	8260B/8270C	6.4E-03	1.1E-03	**2.4E-03**	**9.7E-03**	<0.004	<0.01	2.6E-03	<0.001	2.0E-04	0.064
	7/10/2008	8260B	4.6E-03	<0.002	<0.002	<0.008	<0.008	<0.02	<0.002	<0.002	<0.002	0.028
	5/24/2007	8260B/8270C	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01	<0.01	<0.01	<0.01

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

NOTES:

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

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

3) Method 8260B volatiles short list only run

4) 9/26/2011 Quarterly sampling combined with Annual sampling event

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
NAPIS 1	11/28/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/12/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/20/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/27/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/2/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/2/2010	8260	<0.001	<0.001	<0.001	<0.003	<0.0015
	9/15/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/8/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/8/2010	8021B	<0.001	<0.001	<0.001	<0.002	NL
	11/23/2009	8260B	<0.001	1.6E-03	<0.001	<0.002	<0.0025
	8/11/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	5/28/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/24/2009	8260B	<0.001	0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/30/2008	8260B	<0.001	<0.001	<0.001	<0.002	NL
	7/9/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	4/11/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
NAPIS 2	11/28/2012	8021B	**0.016**	<0.002	0.003	<0.004	**0.36**
	8/21/2012	8260B	**0.01**	<0.005	<0.005	<0.0075	**0.16**
	6/12/2012	8021B	**0.018**	<0.01	0.012	<0.02	**0.34**
	3/20/2012	8021B	**0.019**	<0.01	0.011	<0.02	**0.37**
	12/14/2011	8021B	**0.022**	<0.005	8.9E-03	<0.01	**0.33**
	9/27/2011	8021B	**0.035**	<0.005	<0.005	<0.01	**0.33**
	6/15/2011	8260B	**0.027**	<0.005	**0.018**	<0.0075	**0.28**
	3/2/2011	8021B	**0.04**	<0.001	**0.014**	<0.01	**0.34**
	11/2/2010	8260	**0.015**	<0.005	<0.005	<0.0015	**0.27**
	9/15/2010	8260B	**0.066**	<0.005	**8.3E-03**	<0.015	**0.23**
	6/10/2010	8021B	**0.14**	<0.005	**9.6E-03**	<0.001	**0.23**
	3/8/2010	8260B	**0.083**	1.4E-03	**0.016**	2.1E-03	**0.25**
	11/23/2009	8260B	**0.032**	0.001	**9.3E-03**	<0.002	0.094
	8/11/2009	8260B	**0.057**	<0.001	**0.022**	<0.002	0.089
	5/28/2009	8260B	**0.028**	<0.005	**5.3E-03**	<0.01	**0.13**
	3/24/2009	8260B	**0.019**	1.1E-03	**8.1E-03**	<0.002	0.09
	11/10/2008	8260B	**0.025**	<0.001	0.011	<0.002	**0.18**
	9/30/2008	8260B	**0.016**	<0.001	**1.6E-03**	4.1E-03	NL
	7/9/2008	8260B	**0.013**	<0.001	0.011	5.6E-03	**0.2**
	4/11/2008	8260B	**0.91**	0.019	**0.051**	0.12	**0.32**

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	**DATE SAMPLED**	**METHOD**					
NAPIS 3	11/28/2012	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	10/2/2012[3]	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/12/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/20/2012	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	12/14/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	9/27/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/2/2011	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/2/2010	8260	<0.001	<0.001	<0.001	<0.0015	<0.0015
	9/15/2010	8021B	0.001	<0.001	<0.001	<0.002	<0.0025
	6/10/2010	8021B	**0.2**	<0.001	0.012	<0.002	0.08
	3/8/2010	8021B	**0.072**	<0.001	0.001	<0.002	NL
	11/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/31/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	6/15/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
KA 3	11/28/2012	8021B	<0.002	<0.002	<0.002	<0.004	<0.005
	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	0.023
	6/12/2012	8021B	**0.013**	<0.001	**4.5E-03**	<0.002	0.028
	3/20/2012	8021B	**0.015**	<0.002	**4.2E-03**	<0.004	0.035
	12/14/2011	8021B	**0.024**	<0.001	**4.5E-03**	<0.002	0.057
	9/27/2011	8021B	**0.064**	<0.001	0.011	<0.002	0.099
	6/15/2011	8260B	<0.001	<0.001	<0.001	<0.0015	0.077
	3/2/2011	8021B	<0.005	<0.005	<0.005	<0.01	0.088
	11/2/2010	8260	**0.23**	<0.01	**0.014**	<0.03	0.1
	9/15/2010	8260B	**0.52**	<0.01	**0.031**	<0.03	0.11
	6/10/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	3/8/2010	8021B	<0.01	<0.01	<0.01	<0.01	NL
	11/23/2009	8260B	<0.001	<0.001	<0.001	<0.002	0.077
	8/31/2009	8260B	<0.001	<0.001	<0.001	<0.002	**0.17**
	5/28/2009	8260B	**0.0033**	1.2E-03	<0.001	<0.002	**0.13**
	3/25/2009	8260B	<0.001	<0.001	<0.001	<0.002	0.11
	7/9/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	11/10/2008	8260B	<0.001	<0.001	<0.001	<0.002	**0.13**
	9/30/2008[2]	8260B	NA	NA	NA	NA	NA

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES
2) *Water level too shallow to sample.*
3) Was not sampled in September due to low recharge rate.

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters											
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**												
NAPIS 1	11/28/2012	300.0	**1.1**	110	2.0	<0.5	1.4	<2.5	70	NA	NA	<1.0	<0.05	<5.0
	8/21/2012	300.0	0.54	96	1.8	<0.5	2.6	<2.5	52	NA	NA	<1.0	<0.05	<5.0
	6/12/2012	300.0	0.88	120	1.7	<0.5	2.9	<2.5	68	NA	NA	<1.0	<0.05	<5.0
	3/20/2012	300.0	0.49	100	1.6	<0.1	3.3	<0.5	56	NA	NA	<1.0	<0.05	<5.0
	12/14/2011	300.0	0.67	150	2.0	4.7	4.7	<10	82	NA	NA	<1.0	<0.05	
	9/27/2011	300.0	**1.1**	180	2.2	**58**	**58**	<2.5	110	NA	NA	<1.0	<0.05	
	6/15/2011	300.0	0.52	140	1.8	<0.1	6.2	<0.5	78	NA	NA	<1.0	0.11	
	3/2/2011	300.0	0.42	180	2.1	9.5	9.5	<0.5	92	NA	NA	<1.0	<0.05	
	11/2/2010	300.0	**0.96**	200	NL	<2.0	6.9	<0.5	98	NA	NA	<1.0	<0.05	
	9/15/2010	300.0	0.5	189	NL	**11.2**	**11.2**	**0.019**	65	NA	NA	<1.0	<0.05	
	6/8/2010	300.0	0.73	170	2.2	4.0	4	<0.5	56	7.86	1800	<1.0	<0.05	
	3/8/2010	300.0	0.75	130	1.7	2.0	2	<0.5	52	NA	NA	<1.0	<0.05	
	11/23/2009	300.0	**1.4**	170	NL	1.8	1.8	<0.5	100	7.39	2000	<1.0	<0.05	
	8/11/2009	300.0	**1.2**	160	NL	0.54	0.54	<0.5	93	7.67	1800	<1.0	<0.05	
	5/28/2009	300.0	**1.2**	150	NL	0.31	0.31	<0.5	71	7.82	1900	<1.0	<0.05	
	3/24/2009	300.0	0.69	120	NL	<1.0	<1.0	<0.5	38	7.69	2000	<1.0	<0.05	
	11/10/2008	300.0	0.73	160	NL	<0.1	1.6	<0.5	63	7.3	1900	<1.0	<0.05	
	9/30/2008	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
	7/9/2008	300.0	**1.4**	180	NL	<1.0	<1.0	<0.5	98	7.27	1900	<1.0	<0.05	
	4/11/2008	300.0	0.79	170	NL	0.55	0.55	<0.5	<0.5	7.26	2000	<1.0	<0.05	
NAPIS 2	11/28/2012	300.0	**1.7**	**370**	1.7	<0.5	<0.5	<2.5	11	NA	NA	<1.0	0.52	<5.0
	8/21/2012	300.0	**1.6**	**370**	1.4	<0.5	<0.5	<2.5	11	NA	NA	<1.0	1.4	<5.0
	6/12/2012	300.0	**1.7**	**350**	1.5	<0.5	<0.5	<2.5	7.90	NA	NA	<1.0	1.3	<5.0
	3/20/2012	300.0	0.49	**330**	0.94	<1.0	<1.0	<0.5	5.30	NA	NA	**4.7**	1.4	<5.0
	1/30/2012[5]	300.0	**1.1**	**420**	1.4	<1.0	<1.0	<2.5	<2.5	7.12	2200	NA	NA	
	12/14/2011[4]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.4**	0.61	
	9/27/2011	300.0	**1.8**	**270**	1.2	**80**	**80**	<2.5	6.00	NA	NA	**3.1**	0.69	
	6/15/2011	300.0	**1.4**	**380**	<2.0	<0.5	<2.0	<2.5	3.30	NA	NA	**1.8**	0.97	
	3/2/2011	300.0	**1.3**	**360**	1.3	<1.0	<1.0	<2.5	3.70	NA	NA	**2.8**	1.3	
	11/2/2010	300.0	**1.7**	230	NL	<1.0	<1.0	<0.5	7.80	NA	NA	**5.1**	0.57	
	9/15/2010	300.0	**1.3**	220	NL	<0.5	<0.5	**0.01**	6.00	NA	NA	**5.3**	1.0	
	6/10/2010	300.0	**1.2**	**340**	1.2	<1.0	<1.0	<2.5	8.70	7.8	1800	**6.3**	1.3	

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters											
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**												
NAPIS 2	3/8/2010	300.0	**1.4**	**320**	1.0	<1.0	<1.0	<0.05	11	NA	NA	**3.8**	1.0	
	11/23/2009	300.0	**1.6**	220	NL	<1.0	<1.0	<0.05	13	7.16	1500	**2.7**	0.78	
	8/11/2009	300.0	**1.7**	**250**	NL	<1.0	<1.0	<0.05	17	7.56	1500	**2.9**	0.62	
	5/28/2009	300.0	**1.7**	210	NL	0.16	0.16	<0.05	22	7.51	1400	**3.4**	0.53	
	3/24/2009	300.0	**1.5**	240	NL	<1.0	<1.0	<0.05	23	7.47	1800	**4.3**	0.37	
	11/10/2008	300.0	**1.4**	200	NL	<1.0	<1.0	<0.05	32	7.21	1600	**4.0**	0.59	
	9/30/2008	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	**3.9**	0.48	
	7/9/2008	300.0	**1.1**	**270**	NL	<1.0	<1.0	<0.5	33	7.18	2000	**2.4**	0.74	
	4/11/2008	300.0	0.92	**360**	NL	<1.0	<1.0	<0.5	42	7.0	2100	**1.5**	2.2	
NAPIS 3	11/28/2012	300.0	0.68	**880**	3.5	<0.5	**14**	<2.5	280	NA	NA	<1.0	<0.1	<5.0
	10/2/2012[6]	300.0	0.84	**990**	4.9	20	**20**	<2.5	400	7.86	NA	<1.0	<0.05	<5.0
	6/12/2012	300.0	0.55	**1000**	5.3	<0.5	**19**	<2.5	450	NA	NA	<1.0	<0.05	<5.0
	3/20/2012	300.0	0.59	**970**	4.4	<0.5	**19**	<2.5	390	NA	NA	<1.0	<0.05	<5.0
	12/14/2011	300.0	0.29	**1100**	4.5	**19**	**19**	<10	420	NA	NA	<1.0	<0.05	
	9/27/2011	300.0	<0.5	**1000**	5.1	**49**	**49**	<2.5	400	NA	NA	<1.0	<0.05	
	6/15/2011	300.0	**1.5**	**530**	2.3	<0.5	3.5	<2.5	170	NA	NA	<1.0	<0.05	
	3/2/2011	300.0	0.44	**1100**	4.7	**14**	**14**	<0.05	420	NA	NA	<1.0	<0.05	
	11/2/2010	300.0	0.48	**1100**	NL	**18**	**18**	<0.5	430	NA	NA	<1.0	<0.05	
	9/15/2010	300.0	**NL**	**1040**	NL	**24.1**	**24.1**	**0.023**	290	NA	NA	<1.0	<0.05	
	6/10/2010	300.0	**1.5**	**260**	1.1	<1.0	<1.0	<0.5	39	7.84	1600	**1.8**	0.89	
	3/8/2010	300.0	0.46	**410**	1.5	5.5	5.5	<0.5	400	NA	NA	<1.0	<0.5	
	11/23/2009	300.0	0.49	**1100**	NL	**15**	**15**	<0.5	370	7.91	4400	<1.0	<0.05	
	8/31/2009	300.0	0.47	**1000**	NL	**14**	**14**	<0.5	<10	8.07	4000	<1.0	<0.05	
	6/15/2009	300.0	0.46	**1200**	NL	**18**	**18**	<0.5	330	8.23	4200	<1.0	<0.05	
	3/25/2009	300.0	0.43	**1200**	NL	<1.0	**14**	<0.5	340	8.11	5200	<1.0	<0.05	
	11/10/2008	300.0	**1.1**	**1100**	NL	<1.0	2.6	<0.5	310	8.05	4300	<1.0	<0.05	
	9/30/2008[3]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	7/9/2008	300.0	0.46	**1100**	NL	9.1	9.1	<0.5	270	8.29	4200	<1.0	<0.05	
KA 3	11/28/2012	300.0	**0.98**	**870**	4	2.8	9.9	<2.5	270	NA	NA	<1.0	<0.1	<5.0
	8/21/2012	300.0	<2.0	**250**	1.2	<1.0	0.31	<0.5	43	NA	NA	<1.0	0.1	<5.0
	6/12/2012	300.0	**1.3**	**710**	3.9	2.1	**11**	<2.5	220	NA	NA	<1.0	0.14	<5.0
	3/20/2012	300.0	**2.0**	**440**	1.9	<1.0	**15**	<2.5	220	NA	NA	**1.8**	0.16	<5.0
	12/14/2011	300.0	**1.3**	**260**	1.1	<1.0	<1.0	<0.5	38	NA	NA	<1.0	0.15	

8.8.1 NAPIS-1, NAPIS-2, NAPIS-3, KA-3
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters										
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**												
KA 3	9/27/2011	300.0	**1.5**	**290**	1.3	**48**	**48**	<2.5	48	NA	NA	**2.1**	0.35	
	6/15/2011	300.0	0.51	**970**	4.5	<0.5	**18**	<0.5	370	NA	NA	<1.0	<0.25	
	3/2/2011	300.0	**1.2**	**600**	2.4	**4.3**	4.3	<0.5	150	NA	NA	<1.0	<0.25	
	11/2/2010	300.0	**1.7**	**260**	NL	<1.0	<1.0	<5.0	38	NA	NA	**1.7**	0.68	
	9/15/2010	300.0	**1.4**	**277**	NL	<0.5	<0.5	**0.013**	37	NA	NA	**3.0**	1.9	
	6/10/2010	300.0	0.38	**1100**	4.7	**17**	**17**	<0.05	390	8.21	3600	<1.0	<0.05	
	3/8/2010	300.0	**1.6**	**410**	1.5	5.5	5.5	<0.05	90	NA	NA	<1.0	0.47	
	11/23/2009	300.0	**1.3**	**610**	NL	3.2	3.2	<0.05	120	7.31	2900	<1.0	0.19	
	8/31/2009	300.0	**2.4**	230	NL	<2.0	<2.0	<0.05	50	7.58	1500	**1.4**	0.52	
	5/28/2009	300.0	**1.6**	**260**	NL	0.22	0.22	<0.05	66	7.71	1700	<1.0	0.32	
	3/25/2009	300.0	**1.5**	**340**	NL	<1.0	0.9	<0.05	76	7.64	2400	<1.0	0.18	
	11/10/2008	300.0	0.46	**590**	NL	2.0	**11**	<0.05	140	7.34	2700	<1.0	0.15	
	9/30/2008[3]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 6-2 (Unknown oil), TPH Screening Guidelines for Potable Ground Water (GW-1). (JUN 2012)
40 CFR 141.62 Detection limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES
2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.
3) Water level too shallow for collect samples.
4) 12/14/11 - General Chemistry parameters missed this quarter. Notified NMED and instructed to re-sample for general chemistry parameters only.
5) Resampled for General Chemistry parameters only.
6) Was not sampled in September due to low recharge rate.

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

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.05	1.0	1.0	0.05	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL (APR 2013)			0.01	2.0	NE	1.3[1]	NE	0.015[1]	NE	0.05	0.002	0.03	NE
EPA RSL for Tap Water (NOV 2012)			4.5E-05	2.9	1.6	0.62	11	NE	NE	0.078	6.3E-04	0.047	4.7
Well ID	DATE SAMPLED	METHOD											
NAPIS 1	11/28/2012	200.7/200.8	<0.0025	0.12	<0.006	<0.006	**1.1**	<0.005	0.099	2.7E-03	<0.001	**0.03**	0.013
	8/21/2012	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.066	<0.005	0.018	4.3E-03	<0.0002	9.4E-03	<0.01
	6/12/2012	200.7/200.8	**3.1E-03**	0.27	6.8E-03	<0.06	**7.5**	<0.005	**0.36**	5.2E-03	<0.001	**0.032**	0.037
	3/20/2012	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.99	<0.005	0.039	5.3E-03	<0.0002	0.012	<0.01
	12/14/2011	200.7/200.8	<0.0025	0.19	<0.006	<0.006	**2.9**	<0.005	0.12	3.3E-03	<0.0002	0.019	0.017
	9/27/2011	200.7/200.8	<0.0025	0.13	<0.006	<0.006	0.59	<0.005	0.092	6.7E-03	<0.0002	**0.046**	<0.01
	6/15/2011	200.7/200.8	**0.004**	0.19	<0.006	<0.006	**2.2**	<0.005	0.058	0.01	<0.0002	0.013	0.012
	3/2/2011	200.7/200.8	<0.0025	0.17	<0.006	<0.006	**1.0**	<0.005	0.035	<0.05	NL	0.021	<0.01
	11/2/2010	6010B	<0.02	0.26	6.2E-03	<0.006	**6.4**	<0.005	0.16	<0.05	<0.0002	**0.045**	0.027
	9/15/2010	6010B	<0.02	0.19	<0.006	<0.006	0.56	<0.005	0.044	<0.05	<0.0002	0.018	<0.02
	6/8/2010	6010B	<0.02	0.18	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	<0.001	0.133	1.06E-03	2.64E-03	0.548	<0.001	1.47E-02	<0.001	<0.0001	**0.273**	4.85E-03
	11/23/2009	6010B	<0.02	0.2	7.7E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/11/2009	6010B	<0.02	0.11	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.091	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/24/2009	6010B	<0.02	0.1	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	10/14/2008	6010B	<0.02	0.17	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
NAPIS 2	11/28/2012	200.7/200.8	<0.0025	**1.7**	<0.006	<0.006	**1.1**	<0.005	0.099	2.7E-03	<0.001	**0.03**	1.3E-02
	8/21/2012	200.7/200.8	**9.7E-03**	**1.7**	<0.006	<0.006	**3.1**	<0.005	**1.7**	3.1E-03	<0.0002	<0.0025	<0.01
	6/12/2012	200.7/200.8	**0.01**	**1.9**	<0.006	<0.06	**3.8**	<0.005	**1.9**	3.5E-03	<0.001	<0.0025	<0.01
	3/20/2012	200.7/200.8	**0.011**	**2.1**	<0.006	7.1E-03	**5.0**	<0.005	**1.6**	3.6E-03	<0.0002	<0.0025	0.015
	12/14/2011	200.7/200.8	**9.9E-03**	**1.7**	<0.006	<0.006	**4.1**	<0.005	**1.4**	<0.0025	<0.0002	<0.0025	0.011
	9/27/2011	200.7/200.8	**0.012**	**1.7**	<0.006	<0.006	**4.2**	<0.005	**1.3**	3.4E-03	<0.0002	<0.0025	0.016
	6/15/2011	200.7/200.8	**0.012**	**2.1**	<0.006	<0.006	**5.4**	<0.005	**1.5**	6.3E-03	<0.0002	<0.0025	<0.01
	3/2/2011	200.7/200.8	**0.011**	**2.4**	<0.006	7.5E-03	**5.4**	<0.005	**1.3**	<0.05	NL	<0.0025	<0.01
	11/2/2010	6010B	<0.02	**1.2**	<0.006	<0.006	**4.2**	<0.005	**1.2**	<0.05	<0.0002	NL	<0.02
	9/15/2010	6010B	<0.02	**1.4**	<0.006	<0.006	**4.3**	<0.005	**1.1**	<0.05	<0.0002	<0.001	<0.02
	6/10/2010	6010B	<0.02	**1.7**	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	**4.57E-03**	**2.07**	1.05E-03	2.46E-03	**4.71**	1.38E-03	**1.25**	<0.001	<0.0001	<0.001	7.07E-03
	11/23/2009	6010B	<0.02	**1.1**	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/11/2009	6010B	<0.02	0.94	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.65	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
NAPIS 3	11/28/2012	200.7/200.8	**4.8E-03**	0.57	0.018	0.018	**9.9**	8.1E-03	**0.46**	9.7E-03	<0.0002	**0.04**	0.12
	10/2/2012[1]	200.7/200.8	**4.2E-03**	0.18	<0.006	<0.006	**1.8**	<0.005	0.11	0.016	<0.0002	**0.037**	0.02

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

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**											
NAPIS-3	6/12/2012	200.7/200.8	**5.1E-03**	0.11	7.5E-03	<0.006	**2.4**	5.2E-03	0.082	0.017	<0.0002	**0.041**	0.057
	3/20/2012	200.7/200.8	**0.006**	0.16	0.017	8.3E-03	**5.5**	8.2E-03	0.12	0.017	<0.0002	**0.038**	0.22
	12/14/2011	200.7/200.8	**4.4E-03**	0.16	0.019	<0.006	**6.0**	8.1E-03	0.11	0.011	<0.0002	**0.041**	0.23
	9/27/2011	200.7/200.8	**7.2E-03**	0.27	0.044	0.012	**2.0**	0.014	**0.21**	0.2	<0.0002	**0.041**	0.51
	6/15/2011	200.7/200.8	**0.007**	0.2	<0.006	<0.006	0.72	<0.005	**1.0**	0.012	<0.0002	0.013	<0.01
	3/2/2011	200.7/200.8	<0.0025	0.078	<0.006	<0.006	0.49	<0.005	0.017	<0.05	NL	**0.044**	0.014
	11/2/2010	6010B	<0.02	0.096	7.5E-03	0.012	**2.6**	0.011	0.12	<0.05	<0.0002	**0.032**	0.59
	9/15/2010	6010B	<0.02	0.11	**0.098**	0.014	**3.9**	0.012	0.15	<0.05	<0.0002	**0.035**	0.36
	6/10/2010	6010B	<0.02	0.54	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/8/2010	6020A	**1.58E-03**	9.79E-02	3.96E-03	3.19E-03	0.338	1.23E-03	0.0176	3.73E-03	<0.0002	**3.19E-02**	9.41E-03
	11/23/2009	6010B	<0.02	0.15	7.2E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/31/2009	6010B	<0.02	0.092	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	6/15/2009	6010B	<0.02	0.14	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	3/25/2009	6010B	<0.02	0.13	<0.01	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
KA 3	11/28/2012	200.7/200.8	**0.006**	**1.3**	0.036	0.013	**30**	<0.005	**1.7**	0.01	<0.0002	**0.032**	0.092
	8/21/2012	200.7/200.8	**2.8E-03**	0.3	<0.006	0.007	0.32	<0.005	**0.81**	<0.0025	<0.0002	4.3E-03	0.014
	6/12/2012	200.7/200.8	**5.7E-03**	0.61	0.022	9.2E-03	**15**	<0.005	**0.93**	0.012	<0.001	0.027	0.055
	3/20/2012	200.7/200.8	**6.5E-03**	0.99	0.033	0.017	**24**	<0.005	**1.8**	8.8E-03	<0.0002	0.023	0.095
	12/14/2011	200.7/200.8	**3.8E-03**	0.34	<0.006	<0.006	**1.1**	<0.005	**1.1**	<0.0025	<0.0002	4.5E-03	0.013
	9/27/2011	200.7/200.8	**6.3E-03**	0.3	<0.006	<0.006	**2.2**	<0.005	**1.1**	0.003	<0.0002	5.8E-03	0.024
	6/15/2011	200.7/200.8	**8.9E-03**	0.22	0.028	<0.006	**9.4**	0.014	0.16	0.03	<0.0002	**0.035**	0.32
	3/2/2011	200.7/200.8	**6.3E-03**	0.44	<0.006	<0.006	0.64	<0.005	**1.4**	<0.05	NL	0.015	<0.01
	11/2/2010	6010B	<0.02	0.6	<0.006	<0.006	**1.2**	<0.005	**1.4**	<0.05	<0.0002	NL	<0.02
	9/15/2010	6010B	<0.02	0.47	**0.096**	<0.006	**1.6**	<0.005	**1.3**	<0.05	<0.0002	0.003	<0.02
	6/10/2010	6010B	<0.02	0.17	6.4E-03	NL	NL	<0.005	NL	<0.05	<0.0002	NL	<0.02
	3/8/2010	6020A	**0.011**	0.335	1.4E-03	1.14E-02	**2.35**	3.03E-03	**2.1**	<0.001	<0.0001	6.52E-03	2.11E-02
	11/23/2009	6010B	<0.02	0.55	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	8/31/2009	6010B	<0.02	0.22	<0.01	NL	NL	<0.005	NL	<0.02	<0.0002	NL	NL
	5/28/2009	6010B	<0.02	0.29	<0.006	NL	NL	<0.005	NL	<0.05	<0.0002	NL	NL
	3/25/2009	6010B	<0.02	0.22	<0.006	NL	NL	5.50E-03	NL	<0.05	<0.0002	NL	NL

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

			Parameters									
			Arsenic (mg/L)	Barium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			0.1	1.0	0.05	1.0	1.0	0.05	0.2	0.05	0.002	0.03	10
40 CFR 141.62 MCL (APR 2013)			0.01	2.0	NE	1.3[1]	NE	0.015[1]	NE	0.05	0.002	0.03	NE
EPA RSL for Tap Water (NOV 2012)			4.5E-05	2.9	1.6	0.62	11	NE	NE	0.078	6.3E-04	0.047	4.7
Well ID	DATE SAMPLED	METHOD											

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

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

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

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
NAPIS 1	11/28/2012	200.7/200.8	**1.9E-03**	0.093	58	<0.006	<0.006	<0.02	<0.001	11	9.8E-03	<1.0	4.1E-03	400	0.029	0.013
	8/21/2012	200.7/200.8	**2.1E-03**	0.12	73	<0.006	<0.006	<0.02	<0.005	13	0.011	<1.0	4.3E-03	350	0.011	0.017
	6/12/2012	200.7/200.8	**2.3E-03**	0.1	70	<0.006	<0.006	0.025	<0.005	13	3.7E-03	<1.0	6.2E-03	330	0.014	0.014
	3/20/2012	200.7/200.8	**1.8E-03**	0.11	80	<0.006	<0.006	<0.02	<0.005	15	6.1E-03	<1.0	0.006	350	0.01	0.022
	12/14/2011	200.7/200.8	**1.7E-03**	0.12	84	<0.006	<0.006	0.27	<0.005	15	6.8E-03	<5.0	3.9E-03	380	0.021	<0.01
	9/27/2011	200.7/200.8	**2.9E-03**	0.12	71	<0.006	<0.006	<0.02	<0.005	13	0.056	2.0	9.2E-03	400	**0.032**	0.011
	6/15/2011	200.7/200.8	**4.7E-03**	0.14	83	<0.006	<0.006	<0.020	<0.005	15	2.3E-03	<1.0	0.017	340	0.016	0.028
	3/2/2011	200.7/200.8	**1.3E-03**	0.15	97	<0.006	<0.006	0.032	<0.005	18	<0.002	1.5	<0.05	380	0.017	<0.01
	11/2/2010	6010B	<0.1	0.13	75	<0.006	<0.006	0.057	<0.005	14	0.016	<5.0	<0.25	420	**0.034**	NL
	9/15/2010	6010B	<0.02	0.18	100	<0.006	<0.006	0.29	6.4E-03	18	6.6E-03	<1.0	<0.05	370	0.011	NL
	6/8/2010	6010B	<0.2	0.13	72	<0.006	NL	NL	<0.005	13	NL	<1.0	<0.05	370	NL	NL
	3/8/2010	6020A	**1.08E-03**	0.139	65.5	<0.001	2.1E-03	<0.01	<0.001	11.5	<0.001	0.829	1.24E-04	322	2.79E-02	2.58E-02
	11/23/2009[2]	6010B	NL	0.2	58	7.7E-03	NL	NL	<0.005	13	NL	3.7	NL	390	NL	NL
	8/11/2009[2]	6010B	NL	0.11	56	<0.006	NL	NL	<0.005	11	NL	1.7	NL	380	NL	NL
	5/28/2009[2]	6010B	NL	0.091	57	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	390	NL	NL
	3/24/2009[2]	6010B	NL	0.1	67	<0.006	NL	NL	<0.005	12	NL	<1.0	NL	340	NL	NL
	11/10/2008[2]	6010B	<0.02	0.13	78	<0.006	NL	NL	<0.005	14	NL	1.2	<0.25	390	NL	NL
	9/30/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/9/2008[2]	6010B	NL	NL	70	NL	NL	NL	NL	12	NL	2.1	NL	430	NL	NL
	4/11/2008[2]	6010B	NL	NL	72	NL	NL	NL	NL	13	NL	1.5	NL	370	NL	NL
NAPIS 2	11/28/2012	200.7/200.8	**1.9E-03**	**1.7**	100	<0.006	<0.006	**2.9**	<0.001	22	**1.8**	<1.0	4.1E-03	330	0.029	0.011
	8/21/2012	200.7/200.8	**0.014**	**2.7**	110	<0.006	<0.006	**1.9**	<0.005	21	**1.6**	<1.0	3.7E-03	380	<0.001	0.016
	6/12/2012	200.7/200.8	**8.9E-03**	**1.8**	93	<0.006	<0.006	**2.7**	<0.005	19	**1.6**	<1.0	4.7E-03	350	<0.001	0.18
	3/20/2012	200.7/200.8	**9.3E-03**	**1.8**	94	<0.006	<0.006	**3.0**	<0.005	18	**1.5**	<1.0	4.2E-03	350	<0.001	0.07
	12/14/2011	200.7/200.8	**8.9E-03**	**1.8**	NL	<0.006	<0.006	**3.2**	<0.005	NL	**1.3**	NL	2.8E-03	NL	<0.001	<0.01
	9/27/2011	200.7/200.8	**0.011**	**1.4**	79	<0.006	<0.006	**2.2**	<0.005	15	**1.2**	<1.0	0.005	330	<0.001	0.015
	6/15/2011	200.7/200.8	**0.012**	**1.7**	85	<0.006	<0.006	**3.2**	<0.005	17	**1.3**	<1.0	9.5E-03	310	<0.001	0.041
	3/2/2011	200.7/200.8	**0.013**	0.055	44	<0.006	<0.006	**4.8**	<0.005	7.6	<0.002	5.8	<0.05	380	<0.001	<0.01
	11/2/2010	6010B	<0.1	**1.4**	73	<0.006	<0.006	**2.9**	<0.005	14	**1.2**	<1.0	<0.05	320	NL	NL
	9/15/2010	6010B	<0.02	**1.5**	69	<0.006	<0.006	**3.7**	<0.005	13	**1.0**	<1.0	<0.05	310	<0.001	NL
	6/10/2010	6010B	<0.02	**1.7**	80	<0.006	NL	NL	<0.005	16	NL	<1.0	<0.05	320	NL	NL
	3/8/2010	6020A	**4.73E-03**	**1.73**	85	<0.001	<0.001	**3.82**	<0.001	15.7	**1.06**	0.278	<0.001	319	<0.001	5.3E-02
	11/23/2009[2]	6010B	NL	**1.1**	56	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	350	NL	NL
	8/11/2009[2]	6010B	NL	0.94	57	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	300	NL	NL

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
NAPIS 2	5/28/2009[2]	6010B	NL	0.65	51	<0.006	NL	NL	<0.005	9.9	NL	<1.0	NL	290	NL	NL
	3/24/2009[2]	6010B	NL	0.76	53	<0.006	NL	NL	<0.005	10	NL	<1.0	NL	280	NL	NL
	11/10/2008[2]	6010B	<0.02	0.42	65	<0.006	NL	NL	6.5E-03	9.7	NL	<1.0	<0.05	330	NL	NL
	9/30/2008[2]	6010B	NL	NL	70	NL	NL	NL	NL	13	NL	<1.0	NL	360	NL	NL
	4/11/2008[2]	6010B	NL	NL	110	NL	NL	NL	NL	19	NL	1.3	NL	380	NL	NL
NAPIS 3	11/28/2012	200.7/200.8	**5.2E-03**	0.14	84	<0.006	0.014	**15**	0.01	11	**0.39**	4.9	0.012	930	**0.035**	0.1
	10/2/2012[4]	200.7/200.8	**0.004**	0.11	51	<0.006	<0.006	**3.2**	<0.005	7.5	0.14	4.0	0.013	890	**0.038**	0.035
	6/12/2012	200.7/200.8	**0.005**	0.054	37	<0.006	<0.006	0.024	<0.005	6.2	<0.002	3.7	0.019	870	**0.039**	0.015
	3/20/2012	200.7/200.8	**3.9E-03**	0.063	40	7.9E-03	<0.006	0.51	<0.005	6.4	0.014	3.9	0.017	920	**0.032**	0.084
	12/14/2011	200.7/200.8	**3.7E-03**	0.052	41	<0.006	<0.006	0.12	<0.005	6.9	4.7E-03	<5.0	0.013	960	**0.04**	0.018
	9/27/2011	200.7/200.8	**6.4E-03**	0.058	38	<0.006	<0.006	0.14	<0.005	6.2	3.5E-03	4.3	0.025	1000	**0.038**	0.018
	6/15/2011	200.7/200.8	**8.5E-03**	0.17	98	<0.006	<0.006	0.057	<0.005	17	**0.92**	1.4	0.019	490	0.013	0.27
	3/2/2011	200.7/200.8	<0.001	0.057	42	<0.006	<0.006	<0.02	<0.005	7.6	<0.002	5.7	<0.05	970	**0.039**	<0.01
	11/2/2010	6010B	<0.02	0.081	42	<0.006	<0.006	0.025	<0.005	7	0.01	4.2	<0.05	990	**0.035**	NL
	9/15/2010	6010B	<0.02	0.066	39	<0.006	<0.006	0.021	<0.005	6.3	0.0021	3.9	<0.05	910	**0.032**	NL
	6/10/2010	6010B	<0.02	0.62	87	<0.006	NL	NL	<0.005	15	NL	<1.0	<0.05	260	NL	NL
	3/8/2010	6020A	**3.12E-03**	6.41E-02	41.5	2.71E-03	2.22E-03	<0.01	<0.001	6.8	1.38E-03	4.49	3.64E-03	835	2.96E-02	0.034
	11/23/2009[2]	6010B	NL	0.15	46	7.2E-03	NL	NL	<0.005	8.8	NL	5.4	NL	930	NL	NL
	8/11/2009[2]	6010B	NL	0.092	39	<0.01	NL	NL	<0.005	6.4	NL	4.0	NL	870	NL	NL
	6/15/2009[2]	6010B	NL	0.14	49	<0.01	NL	NL	<0.005	6.8	NL	4.2	NL	840	NL	NL
	3/24/2009[2]	6010B	NL	0.13	47	<0.006	NL	NL	<0.005	6.5	NL	3.9	NL	880	NL	NL
	11/10/2008[2]	6010B	<0.02	0.13	41	<0.006	NL	NL	<0.005	6.6	NL	4.4	<0.5	960	NL	NL
	9/30/2008[3]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/9/2008[2]	6010B	NL	NL	65	NL	NL	NL	NL	7.8	NL	4.1	NL	910	NL	NL
KA 3	11/28/2012	200.7/200.8	**4.6E-03**	0.15	78	<0.006	<0.006	**4.2**	4.6E-03	16	**0.61**	3.0	8.7E-03	590	0.024	0.021
	8/21/2012	200.7/200.8	**3.1E-03**	0.17	77	<0.006	<0.006	<0.02	<0.005	13	**0.39**	1.8	4.7E-03	430	0.013	0.022
	6/12/2012	200.7/200.8	**3.8E-03**	0.094	68	<0.006	<0.006	0.15	<0.005	12	**0.38**	1.6	7.2E-03	450	0.015	0.012
	3/20/2012	200.7/200.8	**3.3E-03**	0.068	93	0.011	<0.006	0.35	<0.005	16	**0.35**	2.8	8.5E-03	550	0.018	0.033
	12/14/2011	200.7/200.8	**3.4E-03**	0.31	72	<0.006	<0.006	0.14	<0.005	12	**0.95**	<1.0	2.1E-03	330	4.2E-03	<0.01
	9/27/2011	200.7/200.8	**0.006**	0.2	75	<0.006	<0.006	0.083	<0.005	13	**0.89**	1.2	5.7E-03	380	6.7E-03	0.018
	6/15/2011	200.7/200.8	**0.01**	0.063	39	<0.006	<0.006	<0.02	<0.005	6.7	2.6E-03	3.8	0.042	940	**0.034**	0.044
	3/2/2011	200.7/200.8	**6.2E-03**	0.024	4	<0.006	<0.006	0.11	<0.005	<1.0	0.04	1.6	<0.05	200	0.01	<0.01
	11/2/2010	6010B	<0.1	0.62	81	<0.006	<0.006	0.32	<0.005	14	**1.4**	<1.0	<0.05	330	NL	NL
	9/15/2010	6010B	<0.02	0.47	68	<0.006	<0.006	0.56	<0.005	11	**1.2**	<1.0	<0.05	260	0.001	NL
	6/10/2010	6010B	<0.02	0.078	38	<0.006	NL	NL	<0.005	6.5	NL	4.1	<0.05	NL	NL	NL

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
KA 3	3/8/2010	6020A	**9.76E-03**	0.344	96.2	<0.001	4.28E-03	**1.55**	<0.001	15.6	**1.86**	1.2	1.02E-03	385	6.96E-03	0.0382
	11/23/2009[2]	6010B	NL	0.55	100	<0.006	NL	NL	<0.005	19	NL	2.0	NL	480	NL	NL
	8/11/2009[2]	6010B	NL	0.22	53	<0.01	NL	NL	<0.005	8.9	NL	0.73	NL	330	NL	NL
	5/28/2009[2]	6010B	NL	0.29	71	<0.006	NL	NL	<0.005	11	NL	<1.0	NL	330	NL	NL
	3/25/2009[2]	6010B	NL	0.22	67	<0.006	NL	NL	<0.005	10	NL	<1.0	NL	360	NL	NL
	11/10/2008	6010B	<0.02	0.2	65	<0.006	NL	NL	9.5E-03	11	NL	1.8	<0.5	570	NL	NL

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

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

NOTES
2) 2009 Method 6010B Total Recoverable Metals Analysis run
3) Water level too shallow to collect samples.
4) Was not sampled in September due to low recharge rate.

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

			Parameters																
			Acenaphthene (mg/L)	Aniline (mg/L)	Benz (a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	3+4-Methyl phenol (mg/L)	Phenol (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	0.025	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.4	0.012	2.9E-05	0.048	0.22	9.7E-03	0.72	0.72	1.4E-03	NE	NE	4.5	2.4E-03	0.39	0.78	0.53	NE
Well ID	**DATE SAMPLED**	**METHOD**																	
NAPIS 1	12/5/2012[5]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	1/30/2012[2]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	12/14/2011[1]	8270C	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA							
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.1	<0.01							
	6/8/2010	8310	<0.0025	NL	NL	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.0006							
	3/8/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/23/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	8/11/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	3/24/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
NAPIS 2	12/5/2012[5]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01					
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.015	<0.005	<0.005
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.016**	NA	NA	NA	NA	NA
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	**0.015**	<0.01	0.015	<0.01	<0.01	0.034[3]	**0.078[3]**	NA	NA	NA	NA	NA
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	**0.01**	<0.01	<0.01	<0.01	<0.01			NA	NA	NA	NA	NA
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	**0.012**	<0.01	<0.01	**0.011**	<0.01			NA	NA	NA	NA	NA
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01			**0.005**	<0.005	<0.005	<0.005	<0.005
	3/2/2011	8270C	<0.01	<0.01	<0.01	0.01	0.012	NL	<0.01	<0.01	**0.015**	<0.01			NA	NA	NA	NA	NA
	11/2/2010	8270C	0.01	<0.01	<0.01	<0.01	0.011	NL	<0.01	<0.01	<0.01	<0.01			NA	NA	NA	NA	NA
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.05	NL	<0.01	<0.01	<0.01	<0.01			NA	NA	NA	NA	NA
	6/10/2010	8310	<0.0025	NL	<0.00007	NL	0.011	**0.033**	<0.002	NL	**0.089**	0.005			NA	NA	NA	NA	NA
	3/8/2010	8270C/8260B	<0.05	<0.05	<0.05	<0.05	<0.05	NL	<0.05	<0.05	**3.6E-03**	<0.05			2.8E-03	2.8E-03	1.4E-03	4.2E-03	0.002
	11/23/2009	8310	NL	NL	<0.00007	NL	0.009	<0.002	<0.002	NL	**0.046**	1.7E-03							
	8/11/2009	8310	NL	NL	<0.00007	NL	7.3E-03	<0.002	<0.002	NL	<0.002	3.7E-03							
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	4.2E-03	2.3E-03	NL	**0.03**	<0.006							
	3/24/2009	8310	NL	NL	<0.00014	NL	<0.0016	<0.004	<0.004	NL	<0.004	<0.00012							
	11/10/2008	8310	<0.005	NL	<0.00007	NL	9.9E-04	<0.002	<0.002	NL	<0.002	<0.006							
NAPIS 3	12/5/2012[5]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	10/2/2012[4]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.01	<0.01	<0.01	<0.01							
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	9/15/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							

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

			Parameters															
			Acenaphthene (mg/L)	Aniline (mg/L)	Benz (a)anthracene (mg/L)	Bis(2-ethylhexyl) phthalate (mg/L)	Fluorene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	3+4-Methyl phenol (mg/L)	Phenol (mg/L)	1,1-Dichloro ethane (mg/L)	Isopropyl benzene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	0.025	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.4	0.012	2.9E-05	0.048	0.22	9.7E-03	0.72	0.72	1.4E-03	NE	NE	4.5	2.4E-03	0.39	0.78	0.53	NE
Well ID	**DATE SAMPLED**	**METHOD**																	
NAPIS 3	6/10/2010	8310	<0.005	NL	NL	NL	4.9E-03	**0.05**	<0.002	NL	**0.045**	4.5E-03							
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/23/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	8/31/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	6/15/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	3/25/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
KA-3	12/5/2012[5]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	8/21/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/12/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	3/20/2012	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	12/14/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	**0.035**	<0.01	<0.01	**0.019**	<0.01							
	9/27/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01							
	6/15/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0.04	<0.01	<0.01	<0.01	<0.01							
	3/2/2011	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/2/2010	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	**0.013**	<0.01							
	9/15/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	**0.011**	<0.01							
	6/10/2010	8310	<0.005	NL	<0.00007	NL	8.0E-04	<0.002	<0.002	4.5E-03	<0.002	<0.0006							
	3/8/2010	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	NL	<0.01	<0.01	<0.01	<0.01							
	11/23/2009	8310	NL	NL	<0.00007	NL	2.9E-03	**0.022**	<0.002	NL	**0.033**	2.5E-03							
	8/31/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.006							
	5/28/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	**0.047**	<0.006							
	3/25/2009	8310	NL	NL	<0.00007	NL	<0.0008	<0.002	<0.002	NL	<0.002	<0.0006							

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

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

NOTES
1) 8270C analysis was not run. Sample container broke in transit. Notified NMED and was instructed to resample for 8270C analysis only.
2) Resampled for 8270C parameters only.
3) Detected for the first time.
4) Was not sampled in September due to low recharge rate.
5) 8270C analysis was missed during the 4th quarter sampling on 11/28/12.

8.9 BOILER WATER TO EP-2 (BW to EP-2)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 - 8.6[1]	NE
40 CFR 141.62 MCL (NOV 2012)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
BW to EP-2	11/6/2012	300.0	**1.4**	49	<0.5	<0.5	<0.5	<2.5	**1900**	NA	NA
	5/29/2012	300.0	**0.82**	60	<0.5	<1.0	<1.0	<2.5	**1700**	NA	NA
	11/1/2011	300.0	**0.9**	56	<0.5	<1.0	<1.0	<2.5	**1800**	NA	NA
	5/23/2011	300.0	**0.75**	69	0.2	<0.01	0.32	<0.5	**1600**	NA	NA
	11/16/2010	300.0	<0.2	**53000**	<5.0	<200	<200	<25	**1200**	NA	NA
	6/28/2010	300.0	0.27	71	<0.1	<0.1	<0.1	<0.5	500	7.89	1600
	4/20/2010	300.0	**0.64**	68	0.24	<0.1	0.31	<0.5	**1400**	NA	NA
	10/27/2009	300.0	0.39	37	1.3	0.12	0.12	<0.5	**630**	8.35	1900
	5/6/2009	300.0	0.9	45	0.24	<1.0	0.65	<0.5	**1500**	8.01	4200
	6/17/2008	300.0	**1.3**	6.7	NL	<0.1	<1.0	<0.5	**2600**	7.9	6500

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

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

NOTES

8.9.1 BOILER WATER TO EP-2 (BW to EP-2)
Total Recoverable Metals Analytical Result Summary

			Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (NOV 2012)			**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**NE**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
BW to EP-2	11/6/2012	200.7	1.4	<1.0	7.1	1200
	5/29/2012	200.7	4.5	<1.0	2.8	1300
	11/1/2011	200.7	3.9	1.9	380	1100
	5/23/2011	200.7	3.7	<1.0	2.8	1000
	11/16/2010	6010B[1]	1600	250	130	26000
	6/28/2010	6010B[1]	1.7	<1.0	2.1	380
	4/20/2010	6010B[1]	2.5	<1.0	15	970
	10/27/2009	6010B[1]	0.8	<0.5	4.6	480
	5/6/2009	6010B[1]	1.1	<0.5	4.9	1200
	6/17/2008	6010B[1]	1.9	<0.5	15	1900

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

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

NOTES
1) Method 6010B Total Recoverable Metals analysis run

8.10 EVAPORATION PONDS (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
EP-1	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	7.8E-03	<0.0015
	8/2/2010[2]	8260B	<0.001	7.7E-03	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	0.024	5.2E-03	0.044	<0.001
	12/2/2008	8260B	8.3E-03	0.089	0.033	0.26	<0.001
	9/19/2008	8260B	3.3E-03	5.8E-03	2.6E-03	0.02	<0.001
	6/17/2008	8260B	<0.001	5.6E-03	1.6E-03	0.012	<0.001
	3/11/2008	8260B	0.19	0.47	8.7E-03	0.54	5.9E-03
	11/29/2007	8260B	0.064	0.23	0.048	0.31	<0.001
EP-2	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	0.003	1.9E-03	0.015	<0.0015
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	1.3E-03	<0.001	4.3E-03	<0.001
	6/17/2009	8260B	<0.001	0.015	<0.001	0.037	<0.001
	12/2/2008	8260B	1.8E-03	0.02	7.2E-03	0.057	<0.001
	9/19/2008	8260B	<0.001	1.1E-03	<0.001	4.4E-03	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.01
	3/11/2008	8260B	3.8E-03	0.011	2.1E-03	0.014	<0.01
	11/29/2007	8260B	0.021	0.079	0.02	0.13	<0.01
EP-3	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.01	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	1.2E-03	<0.001	5.7E-03	<0.0015
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	1.7E-03	<0.001
	12/2/2008	8260B	1.1E-03	0.012	4.3E-03	0.034	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	3/11/2008	8260B	<0.001	1.9E-03	<0.001	0.004	<0.001
	11/29/2007	8260B	<0.01	0.025	<0.01	0.038	<0.01
EP-4	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01

8.10 EVAPORATION PONDS (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
EP-4	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	0.008	2.9E-03	0.022	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	0.011	<0.01	<0.015	<0.01
EP-5	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.001
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	2.6E-03	0.001	7.2E-03	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-6	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-7	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

8.10 EVAPORATION PONDS (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
EP-7	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-8	11/6/2012	8260b	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	8/2/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	9/19/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	3/11/2008	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/29/2007	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
EP-9	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-11	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-12A	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
EP-12B	11/6/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/29/2012	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.01	<0.015	<0.01
	11/16/2010[3]	8260B	<0.001	<0.001	<0.001	<0.003	<0.0015
	4/20/2010[2]	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

8.10 EVAPORATION PONDS (EP-1 thru EP-12B)
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

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

8.10.1 EVAPORATION PONDS (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 to 8.6[1]	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD									
EP-1	11/6/2012	300.0	72	570	2.5	<2.0	<2.0	<10	980	8.79	5500
	5/29/2012	300.0	34	3400	2.0	<0.5	<0.5	<2.5	1300	7.75	8800
	11/1/2011	300.0	240	3000	1.3	<10	<10	<2.5	1200	8.71	12000
	5/23/2011	300.0	590	200	1.4	<1.0	3.2	<5.0	980	5.49	6200
	11/16/2010[3]	300.0	350	140	1.2	4.8	4.8	<2.5	1000	7.4	4300
	8/2/2010[2]	300.0	99	310	<2.0	<4.0	<4.0	<10	870	7.68	3700
	4/20/2010[2]	300.0	340	330	<5.0	<1.0	<1.0	<5.0	1500	8.36	5400
	6/17/2009	300.0	86	820	NL	<1.0	<1.0	<5.0	580	7.73	4400
	12/2/2008	300.0	110	360	NL	<1.0	<1.0	7.2	780	7.76	4400
	9/9/2008	300.0	99	150	NL	<1.0	<1.0	<5.0	7700	7.82	4500
	6/17/2008	300.0	120	120	NL	<1.0	<1.0	15	1100	7.57	4600
	3/11/2008	300.0	560	540	NL	<1.0	<1.0	<2.5	980	3.81	4900
EP-2	11/6/2012	300.0	84	290	<2.0	<2.0	<2.0	<10	820	8.31	6900
	5/29/2012	300.0	55	6600	2.6	<2.0	<0.5	<2.5	1300	7.6	20000
	11/1/2011	300.0	46	2700	1.5	<20	<20	<5.0	1700	8.35	15000
	5/23/2011	300.0	65	3700	1.3	<20	<20	<25	990	7.84	18000
	11/16/2010[3]	300.0	41	3500	1.8	<10	<10	<2.5	970	7.38	14000
	8/2/2010[2]	300.0	43	1600	<1.0	<4.0	<4.0	<2.5	970	7.91	6400
	4/20/2010[2]	300.0	170	1100	2.3	<2.0	<0.5	<2.5	1200	7.56	5800
	6/17/2009	300.0	52	3500	NL	<2.1	<0.6	<2.5	1000	8.13	13000
	12/2/2008	300.0	37	1800	NL	<2.2	<0.7	<2.5	1000	7.8	8500
	9/9/2008	300.0	48	2800	NL	<1.0	<1.0	<2.5	960	7.97	10000
	6/17/2008	300.0	63	2900	NL	<1.0	<1.0	<2.5	1300	7.9	11000
	3/11/2008	300.0	63	2200	NL	<1.0	<1.0	<2.5	970	6.81	8400
EP-3	11/6/2012	300.0	77	2000	<2.0	<2.0	<2.0	<10	1200	7.84	12000
	5/29/2012	300.0	22	9500	2.4	<4.0	<4.0	<2.5	1400	7.68	27000
	11/1/2011	300.0	43	6400	1.2	<20	<20	<2.5	1600	8.24	17000
	5/23/2011	300.0	54	3700	1.4	<5.0	<1.0	<5.0	1100	8.02	19000
	11/16/2010[3]	300.0	11	5100	1.4	<200	<200	<2.5	1000	7.66	16000
	8/2/2010[2]	300.0	41	2800	1.2	<10	<10	<5.0	1100	7.76	9000
	4/20/2010[2]	300.0	63	8400	<10	<40	<40	<2.5	1100	8.11	32000
	6/17/2009	300.0	48	3600	NL	<4.0	<4.0	<2.5	1100	8.13	14000

8.10.1 EVAPORATION PONDS (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6.6 to 8.6[1]**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
EP-3	12/2/2008	300.0	**26**	**1800**	NL	<2.0	<0.5	<2.5	**980**	7.86	8500
	9/9/2008	300.0	**51**	**2800**	NL	<1.0	<1.0	<5.0	**1100**	7.94	10000
	6/17/2008	300.0	**44**	**3700**	NL	<1.0	<1.0	<2.5	**1400**	7.91	13000
	3/11/2008	300.0	**41**	**2700**	NL	<1.0	<1.0	<2.5	**1000**	7.86	9800
EP-4	11/6/2012	300.0	**46**	**4000**	<2.0	<10	<10	<10	**980**	8.13	19000
	5/29/2012	300.0	**20**	**6500**	3.3	<2.0	<0.5	<2.5	**1400**	7.87	22000
	11/1/2011	300.0	**39**	**4300**	<2.0	<20	<20	<2.5	**1600**	7.76	18000
	5/23/2011	300.0	**35**	**5300**	<2.0	<5.0	<1.0	<5.0	**1100**	8.1	24000
	11/16/2010[3]	300.0	**22**	**4500**	2	<20	<20	<2.5	**1100**	7.81	18000
	8/2/2010[2]	300.0	**35**	**2500**	1.3	<10	<10	<2.5	**1100**	7.89	8700
	4/20/2010[2]	300.0	**67**	**8000**	<2.0	<40	<40	<2.5	**1000**	8.05	26000
	6/17/2009	300.0	**46**	**3400**	NL	<4.0	<4.0	<2.5	**1200**	8.12	13000
	12/2/2008	300.0	**27**	**2000**	NL	<2.0	<0.5	<2.5	**1000**	7.89	9100
	9/9/2008	300.0	**49**	**2900**	NL	<1.0	<1.0	<5.0	**1100**	7.9	11000
	6/17/2008	300.0	**34**	**4500**	NL	<1.0	<1.0	<2.5	**1500**	7.94	15000
	3/11/2008	300.0	**32**	**2800**	NL	<1.0	<1.0	<2.5	**1000**	8.06	10000
EP-5	11/6/2012	300.0	**16**	**5600**	<2.0	<50	<2.0	<10	**870**	8.13	23000
	5/29/2012	300.0	**21**	**6100**	3.2	<4.0	<4.0	<2.5	**1300**	7.84	22000
	11/1/2011	300.0	**26**	**4300**	1.5	<20	<20	<2.5	**1600**	7.74	21000
	5/23/2011	300.0	**27**	**6700**	2.3	<5.0	<1.0	<10	**1200**	8.06	26000
	11/16/2010[3]	300.0	**20**	**4200**	2.1	<20	<20	<2.5	**1200**	7.86	18000
	8/2/2010[2]	300.0	**39**	**4800**	2	<10	<10	<2.5	**1300**	7.97	20000
	4/20/2010[2]	300.0	**53**	**12000**	<10	<40	<40	<2.5	**1100**	8.04	40000
	6/17/2009	300.0	**32**	**4400**	NL	<4.0	<4.0	<2.5	**1400**	8.07	17000
	12/2/2008	300.0	**29**	**2900**	NL	<2.0	<0.5	<2.5	**1200**	7.82	14000
	9/9/2008	300.0	**33**	**3000**	NL	<1.0	<1.0	<5.0	**890**	7.93	10000
	6/17/2008	300.0	**26**	**5400**	NL	<1.0	<1.0	<2.5	**1800**	7.86	17000
	3/11/2008	300.0	**41**	**2900**	NL	<1.0	<1.0	<2.5	**1100**	7.82	10000
EP-6	11/6/2012	300.0	**21**	**11000**	<2.0	<0.5	<2.0	<10	**2500**	7.93	42000
	5/29/2012	300.0	**20**	**8800**	3.3	<4.0	<4.0	<2.5	**2100**	7.86	27000
	11/1/2011	300.0	**24**	**6900**	2.1	<20	<20	<2.5	**2300**	7.94	26000
	5/23/2011	300.0	**18**	**6500**	2.1	<20	<20	<2.5	**1300**	7.83	23000
	11/16/2010[3]	300.0	**25**	**6300**	2.4	<20	<20	<2.5	**1500**	774	21000
	8/2/2010[2]	300.0	**21**	**7400**	2.1	<40	<40	<2.5	**1500**	8.33	27000
	4/20/2010[2]	300.0	**29**	**4000**	<10	<2.0	<2.0	<10	**1100**	7.66	8400

8.10.1 EVAPORATION PONDS (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 to 8.6[1]	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
SAMPLE ID	DATE SAMPLED	METHOD									
EP-6	6/17/2009	300.0	**18**	**5100**	NL	<4.0	<4.0	<10	**1800**	8.07	16000
	12/2/2008	300.0	**28**	**5500**	NL	<2.0	<0.5	<10	**7600**	7.7	19000
	9/9/2008	300.0	**26**	**4900**	NL	<4.0	<4.0	<5.0	**1900**	7.83	16000
	6/17/2008	300.0	**29**	**6600**	NL	<2.0	<0.5	<5.0	**2600**	7.64	25000
	3/11/2008	300.0	**35**	**4100**	NL	<4.0	<4.0	<5.0	**1600**	7.7	13000
EP-7	11/6/2012	300.0	**37**	**81000**	<500	<500	<2.0	<10	**15000**	7.76	210000
	5/29/2011	300.0	**24**	**50000**	25	<20	<20	<25	**9500**	7.72	150000
	11/1/2011	300.0	**22**	**46000**	13	<40	<40	<5.0	**8100**	7.82	120000
	5/23/2011	300.0	**27**	**28000**	16	<100	<100	<2.5	**8400**	7.79	120000
	11/16/2010[3]	300.0	**35**	**35000**	20	<200	<200	<10	**8400**	7.85	84000
	8/2/2010[2]	300.0	**18**	**62000**	27	<200	<200	<10	**11000**	7.41	180000
	4/20/2010[2]	300.0	**16**	**27000**	54	<200	<50	<10	**6900**	7.31	150000
	6/17/2009	300.0	**20**	**39000**	NL	<10	<10	<10	**10000**	7.59	130000
	12/2/2008	300.0	**35**	**42000**	NL	<40	<40	<10	**8300**	7.55	140000
	9/9/2008	300.0	**25**	**38000**	NL	<4.0	<4.0	<5.0	**8500**	7.52	110000
	6/17/2008	300.0	**29**	**64000**	NL	<2.0	<0.5	<5.0	**15000**	7.34	180000
	3/11/2008	300.0	**22**	**22000**	NL	<4.0	<4.0	<5.0	**5600**	7.61	68000
EP-8	11/6/2012	300.0	**71**	**250000**	<500	<500	<500	<2500	**31000**	6.58	550000
	5/29/2012	300.0	**33**	**67000**	39	<20	<20	<25	**9700**	7.53	180000
	11/1/2011	300.0	**27**	**27000**	9.9	<20	<20	<2.5	**3600**	7.92	66000
	5/23/2011	300.0	**43**	**170000**	75	<100	<100	<5.0	**18000**	6.83	370000
	11/16/2010[3]	300.0	**44**	**81000**	57	<200	<200	<10	**12000**	7.14	190000
	8/2/2010[2]	300.0	**43**	**110000**	78	<100	<100	<10	**22000**	**6.21**	300000
	4/20/2010[2]	300.0	**46**	**49000**	54	<200	<200	<10	**6900**	7.31	150000
	6/17/2009	300.0	**57**	**180000**	NL	<10	<10	<10	**23000**	6.73	310000
	12/2/2008	300.0	**31**	**46000**	NL	<40	<40	<10	**8600**	7.39	170000
	9/9/2008	300.0	**26**	**17000**	NL	<20	<20	<5.0	**3400**	7.75	51000
	6/17/2008	300.0	**94**	**160000**	NL	<10	<10	<5.0	**20000**	**6.28**	420000
	3/11/2008	300.0	**25**	**3000**	NL	<40	<40	<5.0	**6100**	7.47	94000
EP-9[2]	11/6/2012	300.0	**13**	**46000**	380	<40	<40	<10	**6400**	7.69	150000
	5/29/2012	300.0	**21**	**63000**	24	<20	<20	<25	**7500**	7.57	160000
	11/1/2011	300.0	**20**	**76000**	24	<100	<100	<10	**9400**	7.58	210000
	5/23/2011	300.0	**19**	**57000**	19	<200	<200	<10	**7100**	7.57	190000
	11/16/2010[3]	300.0	**21**	**76000**	32	<200	<200	<10	**8700**	7.31	200000
	4/20/2010[2]	300.0	**20**	**38000**	14	<200	<200	<10	**5000**	7.58	120000

8.10.1 EVAPORATION PONDS (EP-1 thru EP-12B)
General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6.6 to 8.6[1]	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**									
EP-11[2]	11/6/2012	300.0	**40**	**3500**	<2.0	<2.0	<2.0	<10	**1300**	8.06	18000
	5/29/2012	300.0	**22**	**8200**	5.1	<4.0	<4.0	<2.5	**3700**	7.84	30000
	11/1/2011	300.0	**29**	**5700**	1.2	<20	<20	<5.0	**1800**	7.83	19000
	5/23/2011	300.0	**23**	**16000**	6.2	<40	<40	<2.5	**3900**	7.85	62000
	11/16/2010[3]	300.0	**28**	**14000**	5.9	<40	<40	<5.0	**3300**	7.86	47000
	4/20/2010[2]	300.0	**18**	**17000**	6.9	<100	<100	<10	**4400**	7.73	62000
EP-12A[2]	11/6/2012	300.0	**35**	**4000**	<2.0	<2.0	<2.0	<10	**1400**	8.09	19000
	5/29/2012	300.0	**23**	**7600**	5.0	<4.0	<4.0	<2.5	**2300**	7.88	25000
	11/1/2011	300.0	**36**	**5400**	1.2	<20	<20	<2.5	**1500**	8.05	18000
	5/23/2011	300.0	**28**	**6400**	2.5	<5.0	<1.0	<5.0	**1400**	8.08	26000
	11/16/2010[3]	300.0	**21**	**11000**	4.5	<40	<40	<10	**3100**	8.07	39000
	4/20/2010[2]	300.0	**29**	**6400**	<20	<20	<20	<25	**1300**	7.89	20000
EP-12B[2]	11/6/2012	300.0	**71**	**1900**	<2.0	<2.0	<2.0	<10	**1100**	7.91	12000
	5/29/2012	300.0	**19**	**7000**	3.6	<4.0	<10	<2.5	**1500**	7.75	25000
	11/1/2011	300.0	**39**	**3600**	5.3	<20	<20	<2.5	**1500**	8.12	18000
	5/23/2011	300.0	**37**	**4800**	1.9	<5.0	<1.0	<5.0	**1100**	8.07	22000
	11/16/2010[3]	300.0	**22**	**6100**	3	<20	<20	<5.0	**1700**	7.74	22000
	4/20/2010[2]	300.0	**80**	**5000**	<1.0	<5.0	<5.0	<25	**950**	8.06	9400

DEFINITIONS	**STANDARDS**
NE = Not established	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
NA = Not analyzed	a) Human Health Standards; b) Other standards for Domestic Water
NL = Not listed on laboratory analysis	1) NMAC 20.6.2.2101A General Requirements
Bold and highlighted values represent values above the applicable standards	40 CFR 141.62 Detection Limits for Inorganic Contaminants
	EPA Regional Screening Level (RSL) Summary Table

NOTES

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

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

8.10.2 EVAPORATION PONDS (EP-1 thru EP-12B)
BOD/COD/E-COLI Analytical Result Summary

			Parameters			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]	< 500 organisms per 100 ml	
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			NE	NE	MCL[6]	
SAMPLE ID	DATE SAMPLED	METHOD				
EP-1	11/7/2012	SM5210B/E410.4/SM9223B	520	1100	10462	NL
	5/30/2012	SM5210B/E410.4/SM9223B	340	990	>24196	NL
	11/2/2011	SM5210B/9223B	960	2250	>2419.6	NL
	5/24/2011	SM5210B/9223B	440	1340	1986.3	NL
	11/17/2010	SM9223B/3014	1400	3200	<10	NL
	8/2-3/2010	SM5210B/E410.4/3014	290	346	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	1080	2210	>2419.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	179	344	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>60000	NL
	9/9/2008	SM5210B/E410.4/3014	299	3000	58	NL
	6/17/2008	SM5210B/E410.4/3014	327	1230	ND	ND
	3/11/2008	SM5210B/E410.4/3014	556	965	Absent	NL
EP-2	11/7/2012	SM5210B/E410.4/SM9223B	750	1300	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	100	860	4106	
	11/2/2011	SM5210B/9223B	530	1560	>2419.6	NL
	5/24/2011	SM5210B/9223B	230	737	648.8	NL
	11/17/2010	SM9223B/3014	550	1020	1553.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	64	172	>2419.6	NL
	4/21/2010	SM5210B/E410.4/3014	1100	2060	>2419.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	83.6	192	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>6000	NL
	9/9/2008	SM5210B/E410.4/3014	122	2500	300	NL
	6/17/2008	SM5210B/E410.4/3014	110	790	ND	ND
	3/11/2008	SM5210B/E410.4/3014	0.71	871	Absent	NL
EP-3	11/7/2012	SM5210B/E410.4/SM9223B	390	900	10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	69	980	10	NL
	11/2/2011	SM5210B/9223B	140	608	>2419.6	NL
	5/24/2011	SM5210B/9223B	190	574	1.0	NL
	11/17/2010	SM9223B/3014	120	560	40.8	NL
	8/2-3/2010	SM5210B/E410.4/3014	36	238	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	200	771	100.6	>2419.6
	6/17/2009	SM5210B/E410.4/3014	69.2	204	Present	Present
	12/2/2008	SM5210B/E410.4/3014	ND	ND	>6000	NL
	9/9/2008	SM5210B/E410.4/3014	73	950	300	NL
	6/17/2008	SM5210B/E410.4/3014	9639	691	ND	ND
	3/11/2008	SM5210B/E410.4/3014	323	871	Present	NL
EP-4	11/7/2012	SM5210B/E410.4/SM9223B	230	880	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	59	680	<10	NL
	11/2/2011	SM5210B/9223B	62	478	547.5	NL
	5/24/2011	SM5210B/9223B	190	639	4.1	NL
	11/17/2020	SM9223B/3014	140	440	12	NL
	8/2-3/2010	SM5210B/E410.4/3014	35	204	>2419.6	NL
	4/21/2010[2]	SM5210B/E410.4/3014	281	683	<1.0	>2419.6
	6/17/2009	SM5210B/E410.4/3014	71.1	222	Present	Present

8.10.2 EVAPORATION PONDS (EP-1 thru EP-12B)
BOD/COD/E-COLI Analytical Result Summary

			Parameters			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]	< 500 organisms per 100 ml	
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			NE	NE	MCL[6]	
SAMPLE ID	DATE SAMPLED	METHOD				
EP-4	12/2/2008	SM5210B/E410.4/3014	ND	ND	**2900**	NL
	9/9/2008	SM5210B/E410.4/3014	**68**	**850**	54.5	NL
	6/17/2008	SM5210B/E410.4/3014	**103**	**110**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	**275**	**663**	**Present**	NL
EP-5	11/7/2012	SM5210B/E410.4/SM9223B	**150**	**1000**	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	**35**	**760**	10	NL
	11/2/2011	SM5210B/9223B	29	**302**	5.2	NL
	5/24/2011	SM5210B/9223B	**150**	**413**	1.0	NL
	11/17/2010	SM9223B/3014	**76**	**320**	4.1	NL
	8/2-3/2010	SM5210B/E410.4/3014	**40**	**208**	**1960.8**	NL
	4/21/2010[2]	SM5210B/E410.4/3014	**123**	**782**	2.0	**>2419.6**
	6/17/2009	SM5210B/E410.4/3014	**41.9**	**210**	Absent	**Present**
	12/2/2008	SM5210B/E410.4/3014	ND	ND	**630**	NL
	9/9/2008	SM5210B/E410.4/3014	**59**	**667**	54.5	NL
	6/17/2008	SM5210B/E410.4/3014	<128	**575**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	**178**	**506**	Present	
EP-6	11/7/2012	SM5210B/E410.4/SM9223B	10	**1000**	<1.0	
	5/30/2012	SM5210B/E410.4/SM9223B	18	**710**	<1.0	NL
	11/2/2011	SM5210B/9223B	7.3	**252**	47.3	NL
	5/24/2011	SM5210B/9223B	**71**	**473**	<1.0	NL
	11/17/2010	SM9223B/3014	<1200	**168**	8.6	NL
	8/2-3/2010	SM5210B/E410.4	15	**172**	**1892**	NL
	4/21/2010[2]	SM5210B/E410.5	**54.8**	**290**	1.0	**>2419.6**
	6/17/2009	SM5210B/E410.4	<60	**126**	Absent	**Present**
	12/2/2008	SM5210B/E410.4	ND	ND	17.3	NL
	9/9/2008	SM5210B/E410.4	**47**	**949**	90.9	NL
	6/17/2008	SM5210B/E410.4	<128	**723**	ND	ND
	3/11/2008	SM5210B/E410.4	**126**	**847**	**Present**	NL
EP-7	11/7/2012	SM5210B/E410.4/SM9223B	21	**2300**	<1.0	NL
	5/30/2012	SM5210B/E410.4/SM9223B	15	**3200**	<1.0	NL
	11/2/2011	SM5210B/9223B	15	**1240**	<1.0	NL
	5/24/2011	SM5210B/9223B	27	**918**	<1.0	NL
	11/17/2010	SM9223B/3014	**380**	**920**	<1.0	NL
	8/2-3/2010	SM5210B/E410.4/3014	5	**870**	<1.0	NL
	4/21/2010[2]	SM5210B/E410.4/3014	<60.0	**1010**	<1.0	96
	6/17/2009	SM5210B/E410.4/3014	<60	**720**	Absent	**Present**
	12/2/2008	SM5210B/E410.4/3014	ND	ND	<1.0	NL
	9/9/2008	SM5210B/E410.4/3014	**47.8**	**3330**	24.9	NL
	6/17/2008	SM5210B/E410.4/3014	17.7	**4340**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	15.7	**2118**	Absent	NL
EP-8	11/7/2012	SM5210B/E410.4/SM9223B	10	**13000**	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	4.5	**3800**	<1.0	NL
	11/2/2011	SM5210B/9223B	9.0	**512**	32.3	NL
	5/24/2011	SM5210B/9223B	**46**	**3140**	<1.0	NL
	11/17/2010	SM9223B/3014	**400**	**1720**	<1.0	NL
	8/2-3/2010	SM5210B/E410.4/3014	5	**2520**	<1.0	<1
	4/21/2010[2]	SM5210B/E410.4/3014	14.3	**776**	<1.0	2

8.10.2 EVAPORATION PONDS (EP-1 thru EP-12B)
BOD/COD/E-COLI Analytical Result Summary

			Parameters			
			BOD (mg/L)	COD (mg/L)	E-Coli (CFU/100ml)	Total Coliform (CFU/100ml)
WQCC 20NMAC 6.2.3103			<30[1]	<125[1]	< 500 organisms per 100 ml	
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			NE	NE	MCL[6]	
SAMPLE ID	**DATE SAMPLED**	**METHOD**				
EP-8	6/17/2009	SM5210B/E410.4/3014	<60.0	**2160**	Absent	**Present**
	12/2/2008	SM5210B/E410.4/3014	ND	ND	<1.0	NL
	9/9/2008	SM5210B/E410.4/3014	<16.0	**3080**	102	NL
	6/17/2008	SM5210B/E410.4/3014	8.2	**16100**	ND	ND
	3/11/2008	SM5210B/E410.4/3014	17.4	**1770**	Absent	NL
EP-9	11/7/2012	SM5210B/E410.4/SM9223B	7.9	**1400**	<1.0	NL
	5/30/2012	SM5210B/E410.4/SM9223B	23	**2800**	<1.0	NL
	11/2/2011	SM5210B/9223B	9.0	**1870**	<1.0	NL
	5/24/2011	SM5210B/9223B	**43**	**1640**	<1.0	NL
	11/17/2010	SM9223B/3014	**350**	**1240**	<1.0	NL
	4/21/2010[2]	SM5210B/E410.4/3014	<60.0	**760**	<1.0	85.5
EP-11	11/7/2012	SM5210B/E410.4/SM9223B	**130**	**620**	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	20	**890**	<10	NL
	11/2/2011	SM5210B/9223B	**40**	**486**	461.1	NL
	5/24/2011	SM5210B/9223B	**52**	**711**	<1.0	NL
	11/17/2010	SM9223B/3014	**350**	**460**	4.1	NL
	4/21/2010	SM5210B/E410.4/3014	<60.0	**492**	<1.0	71.9
EP-12A	11/7/2012	SM5210B/E410.4/SM9223B	**150**	**650**	<10	NL
	5/29/2012	SM5210B/E410.4/SM9223B	22	**660**	<10	NL
	11/2/2011	SM5210B/9223B	**85**	**515**	**>2419.6**	NL
	5/24/2011	SM5210B/9223B	**130**	**582**	1.0	NL
	11/17/2010	SM9223B/3014	**330**	**300**	64.4	NL
	4/21/2010	SM5210B/E410.4/3014	**87.3**	**675**	47.6	**>2419.6**
EP-12B	11/7/2012	SM5210B/E410.4/SM9223B	**310**	**850**	<10	NL
	5/30/2012	SM5210B/E410.4/SM9223B	**37**	**920**	<10	NL
	11/2/2011	SM5210B/9223B	**130**	**618**	**>2419.6**	NL
	5/24/2011	SM5210B/9223B	**170**	**450**	3.0	NL
	11/17/2010	SM9223B/3014	**350**	**280**	12	NL
	4/21/2010[2]	SM5210B/E410.4/3014	**342**	**1070**	**1540.2**	**>2419.6**

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

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

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

8.10.3 EVAPORATION PONDS (EP-1 thru EP-12B)
Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
EP-1	11/6/2012	200.7/200.8	**9.5E-03**	0.037	<0.002	NL	7.9E-03	<0.006	**3.1**	<0.006	NL	**0.6**	NL	0.011	NL	**2.2E-03**	<0.0025	0.066
	5/29/2012	200.7/200.8	**9.1E-03**	0.074	<0.002	NL	<0.006	0.014	**2.3**	<0.005	NL	0.15	NL	9.8E-03	NL	**8.2E-04**	<0.0025	0.17
	11/1/2011	200.7/200.8	**7.7E-03**	0.18	<0.002	NL	0.013	0.021	**7.3**	<0.005	NL	0.14	NL	6.7E-04	NL	**4.5E-03**	<0.0025	0.43
	5/23/2011	200.7/200.8	**0.014**	0.077	<0.002	17	**0.055**	0.013	**20**	<0.005	8.2	**0.36**	97	<0.05	900	**1.5E-03**	<0.0025	0.23
	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	**0.39**	<0.03	**14**	<0.025	NL	0.19	NL	<0.25	NL	**6.7E-04**	<0.02	0.89
	8/2/2010	6010B	<0.5	<0.5	<0.05	NL	<0.15	<0.15	**15**	<0.13	NL	**0.43**	NL	<1.3	NL	**1.6E-03**	NL	1.3
	4/20/2010[2]	6010B	<0.1	0.27	<0.01	45	<0.03	<0.03	**36**	<0.025	12	**0.24**	72	<0.25	1400	<0.0002	5.81E-03	0.49
	6/17/2009	6010B	**0.008**	0.01	<0.01	43.5	<0.05	<0.01	**5.6**	<0.05	12.5	**0.2**	55.8	0.015	830	<0.001	<0.001	0.28
	12/2/2008	6010B	<0.02	0.098	NL	43	<0.01	<0.02	**7.6**	<0.005	16	**0.27**	92	0.041	590	<0.0002	<0.001	0.36
	9/9/2008	6010B	<0.02	0.076	<0.002	45	<0.006	<0.006	NL	<0.005	14	**0.22**	62	<0.05	460	<0.0002	<0.001	0.12
EP-2	11/6/2012	200.7/200.8	**9.3E-03**	0.037	<0.002	NL	0.014	<0.006	**1.3**	<0.005	NL	**0.37**	NL	5.3E-03	NL	3.3E-04	<0.0025	0.025
	5/29/2012	200.7/200.8	**0.011**	0.064	<0.002	NL	<0.006	<0.006	0.99	<0.005	NL	0.15	NL	0.011	NL	<0.0002	<0.0025	0.032
	11/1/2011	200.7/200.8	**8.3E-03**	0.059	<0.002	NL	0.008	<0.006	**3.9**	<0.005	NL	0.11	NL	6.2E-03	NL	**1.5E-03**	<0.005	0.12
	5/23/2011	200.7/200.8	**0.014**	0.024	<0.002	68	0.024	<0.006	**2.6**	<0.005	70	**0.33**	120	<0.05	2500	<0.0002	<0.0025	0.037
	11/16/2010	200.7/200.8	<0.1	<0.11	<0.01	NL	**0.051**	<0.03	**7.9**	<0.025	NL	**0.41**	NL	<0.25	NL	4.5E-04	<0.001	0.59
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	**2.4**	<0.05	NL	**0.23**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	91	<0.03	<0.03	**17**	<0.025	26	**0.31**	93	<0.25	1400	**7.7E-04**	8.3E-03	<0.25
	6/17/2009	6010B	**0.011**	<0.1	<0.01	336	<0.05	<0.01	**2.33**	<0.05	75.3	0.17	63.2	0.011	2300	<0.001	0.002	0.08
	12/2/2008	6010B	<0.02	0.061	NL	170	<0.01	<0.02	**2.7**	<0.005	56	0.19	75	0.022	1500	<0.0002	<0.001	0.089
	9/9/2008	6010B	<0.02	0.1	NL	340	<0.006	<0.006	NL	<0.005	84	**0.21**	52	<0.25	1900	**0.1**	2.07E-03	0.089
EP-3	11/6/2012	200.7/200.8	**9.5E-03**	0.039	<0.002	NL	7.6E-03	<0.006	**1.7**	<0.005	NL	**0.48**	NL	0.008	NL	4.4E-04	<0.0025	0.031
	5/29/2012	200.7/200.8	**0.013**	0.081	<0.002	NL	<0.006	<0.006	0.39	<0.005	NL	0.11	NL	0.013	NL	<0.0002	<0.005	<0.01
	11/1/2011	200.7/200.8	**7.6E-03**	0.061	<0.002	NL	6.9E-03	<0.006	**2.6**	<0.005	NL	0.12	NL	6.5E-03	NL	5.5E-04	<0.005	0.06
	5/23/2011	200.7/200.8	**0.015**	0.034	<0.002	94	0.023	<0.006	**2.0**	<0.005	86	**0.33**	130	<0.05	2600	<0.0002	<0.0025	0.033
	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.65	<0.025	NL	0.19	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	**3.0**	<0.05	NL	**0.38**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	600	<0.03	<0.03	**1.6**	<0.025	140	**0.39**	170	<0.25	5000	<0.0002	3.26E-03	<0.25
	6/17/2009	6010B	**0.013**	<0.1	<0.01	377	<0.05	<0.01	**1.75**	<0.05	89.5	**0.22**	79.9	0.013	2600	<0.001	0.003	0.07
	12/2/2008	6010B	**0.024**	0.052	NL	140	<0.01	<0.02	**1.8**	<0.005	52	**0.2**	78	0.026	1700	<0.0002	<0.001	<0.03
	9/9/2008	6010B	<0.02	0.11	NL	340	<0.006	<0.006	NL	<0.005	87	**0.21**	54	<0.25	2000	<0.0002	2.37E-03	0.47
EP-4	11/6/2012	200.7/200.8	**0.011**	0.061	<0.002	NL	<0.006	<0.006	**1.2**	<0.005	NL	**0.52**	NL	0.011	NL	<0.0002	<0.0025	0.026
	5/29/2012	200.7/200.8	**0.015**	0.064	<0.002	NL	0.006	<0.006	0.28	<0.005	NL	0.064	NL	0.018	NL	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	**8.7E-03**	0.077	<0.002	NL	.<0.006	<0.006	**1.2**	<0.005	NL	**0.21**	NL	7.8E-03	NL	2.2E-04	<0.005	0.024
	5/23/2011	200.7/200.8	**0.012**	0.065	<0.002	200	0.024	<0.006	0.41	<0.005	130	**0.3**	140	<0.05	3600	<0.0002	<0.0025	0.018
	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.5	<0.025	NL	0.17	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	0.76	<0.05	NL	**0.31**	NL	<0.5	NL	<0.0002	<.001	<0.5
	4/20/2010[2]	6010B	<0.1	0.086	<0.002	590	<0.006	<0.006	**2.0**	<0.005	140	**0.37**	180	<0.05	5100	<0.0002	3.27E-03	<0.05
	6/17/2009	6010B	**0.012**	<0.1	<0.01	357	<0.05	<0.01	**1.35**	<0.05	85.2	**0.22**	82.5	0.013	2440	<0.001	0.002	0.08
	12/2/2008	6010B	<0.02	0.057	NL	160	<0.01	<0.02	**1.4**	<0.005	59	**0.2**	81	0.025	1700	<0.0002	<0.001	<0.1
	9/9/2008	6010B	<0.02	0.13	NL	320	<0.006	<0.006	NL	<0.005	87	**0.23**	54	<0.25	2000	<0.0002	1.87E-03	0.021

8.10.3 EVAPORATION PONDS (EP-1 thru EP-12B)
Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
EP-5	11/6/2012	200.7/200.8	**0.012**	0.062	<0.002	NL	<0.006	<0.006	0.63	<0.005	NL	**0.39**	NL	0.012	NL	<0.0002	<0.0025	0.023
	5/29/2012	200.7/200.8	**0.015**	0.064	<0.002	NL	<0.006	<0.006	0.28	<0.005	NL	0.07	NL	0.018	NL	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	**0.011**	0.094	<0.002	NL	8.5E-03	<0.006	0.39	<0.005	NL	**0.27**	NL	6.9E-03	NL	.<0.0002	<0.005	0.01
	5/23/2011	200.7/200.8	**0.018**	0.083	<0.002	220	0.022	<0.006	0.14	<0.005	130	0.19	140	<0.05	4100	<0.0002	<0.0025	0.015
	11/16/2010	6010B	<0.1	<0.1	<0.02	NL	0.043	<0.03	0.68	<0.025	NL	**0.22**	NL	<0.25	NL	<0.0002	<0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	<0.5	<0.05	NL	0.069	NL	<0.5	NL	<0.002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.1	0.11	<0.01	790	<0.03	<0.03	**1.1**	<0.025	180	**0.45**	180	<0.25	6500	<0.0002	5.71E-03	<0.05
	6/17/2009	6010B	**0.013**	<0.1	<0.01	460	<0.05	<0.01	0.5	<0.05	116	**0.27**	92.9	0.009	2990	<0.001	0.002	0.02
	12/2/2008	6010B	<0.02	0.084	NL	270	<0.01	<0.02	0.9	<0.005	82	**0.26**	88	0.024	2200	<0.0002	0.001	<0.03
	9/9/2008	6010B	<0.02	0.14	<0.002	220	<0.006	<0.006	NL	<0.005	82	0.17	70	<0.25	2000	<0.0002	1.42E-03	<0.02
EP-6	11/6/2012	200.7/200.8	**0.023**	0.092	<0.002	nl	7.6E-03	<0.006	0.14	<0.005	nl	0.086	NL	0.024	NL	<0.0002	<0.0025	<0.01
	5/29/2012	200.7/200.8	**0.017**	0.1	<0.002	NL	9.3E-03	<0.006	0.28	<0.005	NL	**0.42**	NL	0.016	NL	<0.0002	<0.0025	0.013
	11/1/2011	200.7/200.8	**0.017**	0.11	<0.002	NL	0.015	<0.006	0.15	<0.005	NL	**0.21**	NL	8.9E-03	NL	<0.0002	<0.005	<0.01
	5/23/2011	200.7/200.8	**0.02**	0.12	<0.002	230	0.019	<0.006	0.17	<0.005	110	0.14	98	<0.05	3300	<0.0002	<0.005	0.01
	11/16/2010	6010B	<0.1	0.14	<0.01	NL	0.04	<0.03	<0.03	<0.025	NL	**0.33**	NL	<0.25	NL	<0.0002	0.001	<0.1
	8/2/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	<0.5	<0.05	NL	**4.8**	NL	<0.5	NL	<0.0002	<0.001	<0.5
	4/20/2010[2]	6010B	<0.02	0.064	<0.002	310	<0.006	<0.006	0.67	<0.005	0.89	**0.4**	71	<0.05	2800	<0.0002	1.85E-03	<0.05
	6/17/2009	6010B	**0.015**	<0.1	<0.01	450	<0.05	<0.01	0.2	<0.05	131	**0.31**	94.3	0.005	3380	<0.001	0.002	<0.01
	12/2/2008	6010B	**0.024**	0.12	NL	370	<0.01	<0.02	0.3	<0.005	130	**0.48**	160	<0.02	3700	<0.0002	0.002	<0.03
	9/9/2008	6010B	<0.02	0.11	<0.002	330	<0.006	<0.006	NL	<0.005	130	**0.46**	130	<0.25	3300	<0.0002	1.25E-03	<0.02
EP-7	11/6/2012	200.7/200.8	**0.14**	0.081	<0.1	NL	<0.03	<0.03	<0.1	<0.025	NL	**0.32**	NL	<0.25	NL	<0.0002	<0.02	<0.05
	5/29/2012	200.7/200.8	**0.078**	0.14	<0.002	NL	0.014	<0.006	0.18	<0.005	NL	**0.74**	NL	**0.077**	NL	<0.0002	<0.02	0.011
	11/1/2011	200.7/200.8	**0.049**	0.098	<0.01	NL	<0.03	<0.03	0.39	<0.025	NL	**0.83**	NL	0.03	NL	<0.0002	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.079**	0.13	<0.01	1000	<0.03	<0.03	0.16	<0.025	730	**2.5**	680	<0.25	20000	<0.0002	<0.01	<0.05
	1/16/2010	6010B	<0.2	<0.2	<0.02	NL	<0.06	<0.06	0.83	<0.05	NL	**3.3**	NL	<0.5	NL	<0.0002	0.003	<0.2
	8/2/2010	6010B	<1.0	<1.0	<0.1	NL	<0.3	<0.3	<2.5	<0.25	NL	**3.9**	NL	<2.5	NL	<0.0002	NL	<2.5
	4/20/2010[2]	6010B	**0.1**	<0.2	<0.01	930	<0.03	<0.03	0.28	<0.025	620	**2.7**	660	<0.25	15000	<0.0002	2.25E-03	<0.25
	6/17/2009	6010B	**0.055**	0.1	<0.01	1300	<0.05	0.03	0.14	0.08	944	**4.44**	401	0.033	27300	<0.001	0.003	<0.02
	12/2/2008	6010B	<0.01	0.14	<0.02	820	<0.05	<0.1	<0.5	<0.25	1000	**1.8**	1500	<0.1	28000	<0.0002	0.002	<0.15
	9/9/2008	6010B	<0.20	0.11	<0.02	730	<0.006	<0.006	NL	<0.05	960	**5.8**	1100	<0.5	28000	<0.0002	1.03E-03	<0.02
EP-8	11/6/2012	200.7/200.8	**0.5**	0.23	<0.04	NL	<0.12	<0.12	<0.2	<0.1	NL	**34**	NL	<2.5	NL	<0.0002	<0.05	<0.2
	5/29/2012	200.7/200.8	**0.15**	0.17	<0.002	NL	0.018	7.1E-03	0.5	<0.005	NL	**8.6**	NL	**0.12**	NL	<0.0002	<0.02	0.025
	11/1/2011	200.7/200.8	**0.047**	0.13	<0.002	NL	0.017	<0.006	0.17	<0.005	NL	**1.5**	NL	0.026	NL	.<0.0002	<0.005	0.012
	5/23/2011	200.7/200.8	**0.42**	0.23	<0.01	740	<0.03	<0.06	0.41	<0.025	3300	**20**	4300	<0.25	58000	<0.0002	<0.0025	0.1
	11/16/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<1.0	<0.025	NL	<1.0	NL	<1.0	NL	<0.0002	0.003	<0.4
	8/2/2010	6010B	<1.0	<1.0	<0.1	NL	<0.3	<0.3	<2.5	<0.25	NL	**24**	NL	<2.5	NL	<0.0002	NL	<2.5
	4/20/2010[2]	6010B	**0.17**	0.13	<0.01	680	<0.03	<0.03	0.62	<0.025	1500	**9.6**	2000	<0.25	27000	<0.0002	2.27E-03	<0.25
	6/17/2009	6010B	**0.384**	0.2	<0.01	1120	<0.05	0.27	0.3	<0.05	4050	**28**	2130	**0.224**	67500	<0.001	0.004	0.13
	12/2/2008	6010B	**0.13**	0.15	<0.01	830	<0.05	<0.1	<0.5	<0.025	1400	**5.5**	2300	<0.1	33000	<0.001	0.002	<0.15
	9/9/2008	6010B	<0.1	0.12	<0.01	530	<0.03	<0.03	NL	<0.025	43	**2.4**	800	<0.25	9500	<0.001	1.48E-03	<0.01

8.10.3 EVAPORATION PONDS (EP-1 thru EP-12B)
Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
EP-9[2]	11/6/2012	200.7/200.8	**0.055**	0.15	<0.01	NL	<0.03	<0.03	0.13	<0.025	NL	**0.94**	NL	**0.25**	NL	<0.0002	<0.01	<0.05
	5/29/2012	200.7/200.8	**0.081**	0.17	<0.002	NL	9.6E-03	<0.006	0.11	<0.005	NL	**4.7**	NL	**0.074**	NL	<0.0002	<0.02	0.014
	11/1/2011	200.7/200.8	**0.087**	0.2	<0.01	NL	<0.03	<0.03	0.037	<0.025	NL	**1.9**	NL	**0.051**	NL	<0.0002	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.1**	0.2	<0.01	1200	<0.03	<0.03	0.18	<0.025	970	**7.4**	990	<0.25	33000	<0.0002	<0.01	<0.05
	11/16/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<1.0	<0.1	NL	**6.7**	NL	<1.0	NL	<0.0002	0.003	<0.4
	4/20/2010[2]	6010B	<0.1	0.14	<0.01	890	<0.03	<0.03	0.62	<0.025	790	**29**	870	<0.25	24000	<0.0002	2.20E-03	<0.25
EP-11[2]	11/6/2012	200.7/200.8	**0.017**	0.051	<0.002	NL	6.5E-03	<0.006	0.99	<0.005	NL	**0.35**	NL	0.014	NL	<0.0002	<0.0025	0.024
	5/29/2011	200.7/200.8	**0.028**	0.086	<0.002	NL	9.9E-03	<0.006	0.48	<0.005	NL	**0.8**	NL	0.017	NL	<0.0002	<0.0025	0.014
	11/1/2011	200.7/200.8	**8.3E-03**	0.071	<0.002	NL	<0.006	<0.006	**1.2**	<0.005	NL	0.19	NL	8.4E-03	NL	<0.0002	<0.005	0.021
	5/23/2011	200.7/200.8	**0.061**	0.085	<0.01	540	<0.03	<0.03	0.22	<0.025	340	**0.9**	290	<0.25	9600	<0.0002	<0.01	<0.05
	11/16/2010	6010B	<0.1	0.14	<0.01	NL	**0.35**	<0.03	**1.3**	<0.025	NL	**0.88**	NL	<0.25	NL	<0.0002	0.002	<0.1
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	710	<0.03	<0.03	0.42	<0.025	420	**1.6**	360	<0.25	9900	<0.0002	1.97E-03	<0.25
EP-12A[2]	11/6/2012	200.7/200.8	**0.015**	0.053	<0.002	NL	<0.006	<0.006	0.86	<0.005	NL	**0.32**	NL	0.013	NL	<0.0002	<0.0025	0.02
	5/29/2012	200.7/200.8	**0.025**	0.083	<0.002	NL	9.7E-03	<0.006	0.52	<0.005	NL	**0.75**	NL	0.017	NL	<0.0002	<0.0025	0.016
	11/1/2011	200.7/200.8	**8.5E-03**	0.065	<0.002	NL	6.7E-03	<0.006	**1.9**	<0.005	NL	0.14	NL	6.3E-03	NL	3.5E-04	<0.005	0.04
	5/23/2011	200.7/200.8	**0.024**	0.061	<0.002	200	0.02	<0.006	0.22	<0.005	120	**0.32**	120	<0.05	3400	<0.0002	<0.0025	0.016
	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	**1.1**	<0.025	NL	**0.4**	NL	<0.25	NL	<0.0002	0.002	<0.1
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	350	<0.03	<0.03	0.92	<0.025	110	**0.28**	130	<0.25	3900	<0.0002	1.75E-03	<0.25
EP-12B[2]	11/6/2012	200.7/200.8	**9.2E-03**	0.04	<0.002	NL	6.9E-03	<0.006	**1.6**	<0.005	NL	**0.47**	NL	8.9E-03	NL	4.2E-04	<0.0025	0.031
	5/29/2012	200.7/200.8	**0.016**	0.072	<0.002	NL	<0.006	<0.006	0.32	<0.005	NL	0.12	NL	0.017	NL	<0.0002	<0.0025	<0.01
	11/1/2011	200.7/200.8	**7.6E-03**	0.063	<0.002	NL	7.3E-03	<0.006	**2.4**	<0.005	NL	0.13	NL	0.006	NL	5.5E-04	<0.005	0.059
	5/23/2011	200.7/200.8	**0.016**	0.05	<0.002	170	0.022	<0.006	0.59	<0.005	110	**0.29**	130	<0.05	3100	<0.0002	<0.0025	0.02
	11/16/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.84	<0.025	NL	0.15	NL	<0.25	NL	<0.0002	<0.001	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	320	<0.03	<0.03	**4.2**	<0.025	83	**0.35**	150	<0.25	3100	<0.0002	2.91E-03	<0.25

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

Bold and highlighted values represent values above the applicable standards

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

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

8.10.4 EVAPORATION PONDS (EP-1 thru EP-12B)
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
EP-1	11/6/2012	200.7/200.8	**8.8E-03**	0.034	<0.002	92	7.3E-03	<0.006	**2.2**	<0.005	**0.66**	62	7.2E-03	<0.005	970	1.1E-03	0.099
	5/29/2012	200.7/200.8	**8.4E-03**	0.046	<0.002	120	<0.006	<0.006	0.76	<0.005	0.15	73	0.011	<0.005	1600	<0.005	0.074
	11/1/2011	200.7/200.8	**4.7E-03**	0.012	<0.002	22	<0.006	<0.006	**1.0**	<0.005	0.12	680	0.015	<0.005	1400	<0.002	0.059
	5/23/2011	200.7/200.8	<0.01	0.014	<0.01	5.5	0.047	<0.03	**15**	<0.025	**0.34**	110	<0.25	<0.025	910	<0.005	0.13
	11/16/2010	6010B	<0.1	<0.1	<0.1	12	<0.03	<0.03	**4.3**	<0.025	0.15	72	<0.25	<0.025	580	<0.001	<0.25
	8/2/2010	6010B	<0.02	0.072	<0.002	NL	0.013	<0.006	**2.5**	<0.005	**0.36**	NL	<0.05	<0.025	NL	<0.001	0.096
	4/20/2010[2]	6010B	<0.02	0.085	<0.002	31	0.019	9.1E-03	**29**	<0.005	**0.24**	70	**0.066**	<0.005	1500	4.42E-03	0.28
EP-2	11/6/2012	200.7/200.8	**0.01**	0.034	<0.002	38	0.012	<0.006	**1.2**	<0.005	**0.36**	31	4.1E-03	<0.005	830	<0.001	0.045
	5/29/2012	200.7/200.8	**0.011**	0.06	<0.002	200	<0.006	<0.006	0.46	<0.005	0.15	150	0.011	<0.005	2900	<0.005	0.024
	11/1/2011	200.7/200.8	**5.8E-03**	0.042	<0.002	140	6.5E-03	<0.006	**1.1**	<0.005	0.11	640	5.7E-03	<0.005	1900	<0.002	0.044
	5/23/2011	200.7/200.8	**0.014**	0.026	<0.01	55	<0.03	<0.03	**1.7**	<0.025	**0.33**	140	<0.25	<0.025	2600	<0.005	<0.05
	11/16/2010	6010B	<0.1	<0.1	<0.01	150	<0.03	<0.03	0.71	<0.025	0.18	65	<0.25	<0.025	2100	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	**2.2**	<0.025	**0.27**	NL	<0.25	<0.025	NL	<0.001	<0.25
	4/20/2010[2]	6010B	<0.02	0.057	<0.002	130	0.013	<0.006	**9.7**	<0.005	**0.34**	100	<0.25	<0.005	1700	0.0046	0.12
EP-3	11/6/2012	200.7/200.8	**8.1E-03**	0.04	<0.002	140	6.5E-03	<0.006	**1.0**	<0.005	**0.52**	89	5.3E-03	<0.005	1800	1.1E-03	0.076
	5/29/2012	200.7/200.8	**0.014**	0.076	<0.002	410	<0.006	<0.006	0.22	<0.005	0.1	190	0.022	<0.005	4700	<0.01	0.033
	11/1/2011	200.7/200.8	**6.6E-03**	0.053	<0.002	210	<0.006	<0.006	**1.3**	<0.005	0.12	570	5.6E-03	<0.005	2100	<0.005	0.03
	5/23/2011	200.7/200.8	**0.014**	0.033	<0.002	92	0.024	<0.006	**1.5**	<0.005	**0.34**	150	<0.05	<0.005	3100	<0.005	0.033
	11/16/2010	6010B	<0.1	<0.1	<0.01	160	<0.03	<0.03	0.24	<0.025	0.15	71	<0.25	<0.025	2300	<0.001	<0.25
	8/2/2010	6010B	<0.1	0.12	<0.002	NL	9.3E-03	<0.006	**1.8**	<0.005	**0.37**	NL	<0.05	<0.005	NL	<0.001	<0.05
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	590	<0.03	<0.03	0.88	<0.025	**0.42**	170	<0.25	<0.005	5100	2.58E-03	<0.25
EP-4	11/6/2012	200.7/200.8	**7.6E-03**	0.068	<0.002	170	<0.006	<0.006	0.29	<0.005	**0.59**	220	<0.01	<0.005	2900	<0.001	0.13
	5/29/2012	200.7/200.8	**0.017**	0.06	<0.002	230	6.7E-03	<0.006	0.2	<0.005	0.061	170	0.024	<0.005	3600	<0.005	0.036
	11/1/2011	200.7/200.8	**8.6E-03**	0.073	<0.002	210	<0.006	<0.006	0.78	<0.005	**0.2**	570	8.4E-03	<0.005	2300	<0.005	0.022
	5/23/2011	200.7/200.8	**0.017**	0.067	<0.002	210	0.024	<0.006	0.19	<0.005	**0.33**	160	<0.05	<0.005	3800	<0.005	0.019
	11/16/2010	6010B	<0.1	<0.1	<0.01	210	<0.03	<0.03	0.22	<0.025	0.14	85	<0.25	<0.025	2600	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	**1.0**	<0.025	**0.33**	NL	<0.25	<0.025	NL	0.002	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	590	<0.03	<0.03	0.95	<0.025	**0.41**	170	<0.25	<0.005	4800	2.92E-03	<0.25
EP-5	11/6/2012	200.7/200.8	**7.5E-03**	0.07	<0.002	170	<0.006	<0.006	0.25	<0.005	**0.45**	290	<0.05	<0.005	3700	<0.001	0.034
	5/29/2012	200.7/200.8	0.017	0.059	<0.002	240	6.9E-03	<0.006	0.19	<0.005	0.065	170	0.023	<0.005	3600	<0.01	0.023
	11/1/2011	200.7/200.8	**9.8E-03**	0.085	<0.002	220	0.007	<0.006	0.3	<0.005	**0.24**	490	7.5E-03	<0.005	2900	<0.005	<0.1
	5/23/2011	200.7/200.8	**0.018**	0.086	<0.002	240	0.023	<0.006	0.049	<0.005	**0.21**	150	<0.05	<0.005	4000	<0.005	0.015
	11/16/2010	6010B	<0.1	<0.1	<0.01	210	0.031	<0.03	0.37	<0.025	0.19	91	<0.25	<0.025	2600	<0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.42	<0.025	**0.3**	NL	<0.25	<0.025	NL	0.003	<0.25
	4/20/2010[2]	6010B	<0.1	0.12	<0.01	780	<0.03	<0.03	0.71	<0.025	**0.49**	180	<0.25	<0.005	6400	2.71E-03	<0.25

8.10.4 EVAPORATION PONDS (EP-1 thru EP-12B)
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
EP-6	11/6/2012	200.7/200.8	**0.022**	0.11	<0.02	410	<0.06	<0.06	0.053	<0.05	0.1	480	0.014	<0.05	6500	<0.005	<0.1
	5/29/2012	200.7/200.8	**0.02**	0.094	<0.002	340	0.011	<0.006	0.11	<0.005	**0.41**	270	0.017	<0.005	4400	<0.01	0.019
	11/1/2011	200.7/200.8	**0.02**	0.11	<0.002	230	0.014	<0.006	0.076	<0.005	0.19	250	0.011	<0.005	4400	<0.01	0.011
	5/23/2011	200.7/200.8	**0.016**	0.11	<0.01	200	<0.03	<0.03	0.13	<0.025	0.13	96	<0.25	<0.025	3200	<0.005	<0.05
	11/16/2010	6010B	<0.1	0.12	<0.01	240	<0.03	<0.03	0.18	<0.025	**0.3**	110	<0.25	<0.025	3400	0.001	<0.25
	8/2/2010	6010B	<0.1	<0.1	<0.01	NL	<0.03	<0.03	0.033	<0.025	0.045	NL	<0.25	<0.025	NL	0.002	<0.25
	4/20/2010[2]	6010B	<0.02	0.068	<0.002	320	<0.006	<0.006	0.38	<0.005	**0.43**	72	<0.05	<0.005	2700	1.69E-03	0.5
EP-7	11/6/2012	200.7/200.8	**0.12**	0.14	<0.02	910	<0.06	<0.06	<0.2	<0.05	**0.72**	2300	<0.5	<0.05	43000	<0.02	<0.1
	5/29/2012	200.7/200.8	**0.081**	0.14	<0.02	1100	<0.06	<0.06	<0.2	<0.05	**0.74**	1300	**0.086**	<0.05	28000	<0.02	<0.1
	11/1/2011	200.7/200.8	<0.05	0.09	<0.01	750	<0.03	<0.03	<0.1	<0.025	**0.6**	930	<0.05	<0.025	18000	<0.05	<0.05
	5/23/2011	200.7/200.8	**0.068**	0.13	<0.01	1000	<0.03	<0.03	<0.1	<0.025	**1.9**	850	<0.25	<0.025	20000	<0.01	<0.05
	11/16/2010	6010B	<0.2	<0.2	<0.02	870	<0.06	<0.06	0.19	<0.05	**2.3**	790	<0.5	<0.05	19000	0.003	<0 .5
	8/2/2010	6010B	<0.4	<0.4	<0.04	NL	<0.12	<0.12	<0.2	<0.1	**3.4**	NL	<1.0	<0.1	NL	0.003	<1.0
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	880	<0.03	<0.03	<0.1	<0.025	**2.5**	640	<0.25	<0.025	15000	2.28E-03	<0.25
EP-8	11/6/2012	200.7/200.8	**0.47**	0.26	<0.04	550	<0.12	<0.12	<0.4	<0.1	**36**	7600	<1.0	<0.1	99000	1.1E-03	<0.2
	5/29/2012	200.7/200.8	**0.16**	0.18	<0.02	730	<0.06	<0.06	<0.2	<0.05	**7.3**	2200	**0.13**	<0.05	35000	<0.02	<0.1
	11/1/2011	200.7/200.8	**0.05**	0.13	<0.01	300	<0.03	<0.03	<0.1	<0.025	**1.1**	680	0.03	<0.025	10000	<0.02	<0.05
	5/23/2011	200.7/200.8	**0.38**	0.25	<0.02	1000	<0.06	<0.06	<0.1	<0.05	**20**	4400	<0.5	<0.05	64000	<0.05	<0.1
	11/16/2010	6010B	<0.4	<0.4	<0.04	760	<0.12	<0.12	0.11	<0.1	**9.1**	2900	<1.0	<0.1	33000	0.003	1.0
	8/2/2010	6010B	**0.77**	<0.4	<0.04	NL	<0.12	<0.12	<0.2	<0.1	**22**	NL	<1.0	<0.1	NL	0.001	1.0
	4/20/2010[2]	6010B	<0.2	<0.2	<0.02	720	<0.06	<0.06	0.26	<0.05	**10**	2100	<0.05	<0.05	27000	1.66E-03	<0.5
EP-9[2]	11/6/2012	200.7/200.8	**0.048**	0.17	<0.02	960	<0.06	<0.06	<0.2	<0.05	**0.92**	1100	<0.5	<0.05	25000	<0.01	<0.1
	5/29/2011	200.7/200.8	**0.086**	0.18	<0.02	1100	<0.06	<0.06	<0.2	<0.05	**4.8**	1100	**0.084**	<0.05	30000	<0.02	<0.1
	11/1/2011	200.7/200.8	**0.089**	0.2	<0.01	1400	<0.03	<0.03	<0.1	<0.025	**1.3**	1300	**0.057**	<0.025	38000	<0.05	<0.05
	5/23/2011	200.7/200.8	**0.083**	0.21	<0.01	1300	<0.03	<0.03	<0.1	<0.025	**6.8**	1100	<0.25	<0.025	31000	<0.02	<0.05
	11/16/2010	6010B	<0.4	<0.4	<0.04	1400	<0.12	<0.12	<0.4	<0.1	**5.3**	1400	<1.0	<0.1	37000	0.003	<1.0
	4/20/2010[2]	6010B	<0.2	0.14	<0.01	860	<0.03	<0.03	0.17	<0.025	**2.6**	840	<0.25	<0.025	23000	2.21E-03	<0.25
EP-11[2]	11/6/2012	200.7/200.8	**0.013**	0.056	<0.002	170	<0.006	<0.006	0.79	<0.005	**0.4**	210	0.011	<0.005	2800	1.2E-03	0.043
	5/29/2011	200.7/200.8	**0.03**	0.081	<0.002	360	0.011	<0.006	0.16	<0.005	**0.78**	310	0.019	<0.005	4800	<0.01	0.023
	11/1/2011	200.7/200.8	**0.008**	0.068	<0.002	230	<0.006	<0.006	0.89	<0.005	0.19	620	7.9E-03	<0.005	2600	<0.005	0.015
	5/23/2011	200.7/200.8	**0.055**	0.087	<0.01	520	<0.03	<0.03	0.066	<0.025	**0.89**	330	<0.25	<0.025	9700	<0.01	<0.05
	11/16/2010	6010B	<0.1	0.12	<0.01	410	<0.03	<0.03	0.48	<0.025	**0.64**	280	<0.25	<0.025	7400	0.002	<0.25
	4/20/2010[2]	6010B	<0.1	<0.1	<0.01	690	<0.03	<0.03	0.15	<0.025	**1.6**	360	<0.25	<0.025	9900	2.11E-03	<0.25
EP-12A[2]	11/6/2012	200.7/200.8	**0.012**	0.057	<0.002	170	<0.006	<0.006	0.7	<0.005	**0.38**	220	0.01	<0.005	2900	1.2E-03	0.05
	5/29/2012	200.7/200.8	**0.026**	0.075	<0.002	310	0.011	<0.006	0.16	<0.005	**0.73**	240	0.018	<0.005	4000	<0.01	0.08
	11/1/2011	200.7/200.8	**7.2E-03**	0.058	<0.002	230	<0.006	<0.006	**1.0**	<0.005	0.13	630	5.9E-03	<0.005	2400	<0.005	0.022
	5/23/2011	200.7/200.8	**0.025**	0.063	<0.002	190	0.021	<0.006	0.098	<0.005	**0.31**	140	<0.05	<0.005	4200	<0.005	0.017
	11/16/2010	6010B	<0.1	<0.1	<0.01	320	<0.03	<0.03	0.4	<0.025	**0.27**	210	<0.25	<0.025	6200	0.002	<0.25
	4/20/2010[2]	6010B	<0.2	0.074	<0.002	370	<0.006	<0.006	0.55	<0.005	**0.28**	130	<0.05	<0.005	3600	1.66E-03	<0.05

8.10.4 EVAPORATION PONDS (EP-1 thru EP-12B)
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**															
EP-12B[2]	11/6/2012	200.7/200.8	**0.013**	0.042	<0.002	150	6.8E-03	<0.006	**1.1**	<0.005	**0.52**	100	0.012	<0.005	1700	8.2E-03	0.072
	5/29/2012	200.7/200.8	**0.019**	0.067	<0.002	290	7.1E-03	<0.006	0.18	<0.005	0.11	190	0.017	<0.005	4300	<0.01	0.015
	11/1/2011	200.7/200.8	**6.5E-03**	0.055	<0.002	220	<0.006	<0.006	0.98	<0.005	0.12	610	5.8E-03	<0.005	2300	<0.005	0.024
	5/23/2011	200.7/200.8	**0.015**	0.05	<0.002	150	0.022	<0.006	0.27	<0.005	**0.27**	140	<0.05	<0.005	3100	<0.005	0.019
	11/16/2010	6010B	<0.1	<0.1	<0.01	180	<0.03	<0.03	0.84	<0.025	0.15	110	<0.25	<0.025	3400	<0.001	<0.25
	4/20/2010[2]	6010B	<0.2	0.064	<0.002	330	<0.006	<0.006	**1.8**	<0.005	**0.35**	150	<0.05	<0.005	3100	2.97E-03	<0.05

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

Bold and highlighted values represent values above the applicable standards

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

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

8.10.5 EVAPORATION PONDS (EP-1 thru EP-12B)
Volatile Organic Compound Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	0.01	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	12	9.7E-03	0.027	4.9	0.72	1.9E-03	0.19	0.78
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
EP-1	11/6/2012	8260B	<0.01	<0.01	<0.02	0.41	<0.04	<0.04	<0.1	0.32	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	0.61	<0.04	<0.04	0.11	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	1.4	<0.04	<0.04	0.18	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	1.8	<0.04	<0.04	0.2	<0.1	<0.01	<0.03	<0.01
	8/2/2010	8260B	**0.016**	<0.005	**0.016**	0.73	**0.044**	**0.07**	0.086	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	5.5E-03	1.8E-03	**0.011**	1.7	**0.027**	**0.045**	0.1	<0.01	<0.01	<0.01	<0.01
	6/17/2009	8260B	**0.023**	7.4E-03	**0.012**	0.46	**0.054**	**0.054**	<0.05	<0.05	<0.005	<0.005	<0.005
	12/2/2008	8260B	**0.13**	0.046	**0.074**	1.0	**0.14**	**0.22**	0.094	<0.05	<0.005	<0.005	0.021
	9/9/2008	8260B	**0.027**	9.5E-03	**0.033**	1.6	**0.062**	**0.088**	0.15	0.039	<0.001	<0.001	8.7E-03
	6/17/2008	8260B	**0.017**	4.4E-03	**0.031**	1.6	**0.072**	**0.3**	0.19	0.011	<0.005	<0.005	5.5E-03
	3/11/2008	8260B	**0.038**	**0.11**	**0.2**	1.4	**0.28**	**0.39**	0.16	<0.05	<0.005	<0.005	0.046
EP-2	11/6/2012	8260B	<0.01	<0.01	<0.02	2.4	<0.04	<0.04	0.38	<0.1	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	0.43	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	0.51	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	0.12	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.005	<0.0058	<0.01	0.27	<0.02	<0.02	<0.05	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	4.6E-03	1.4E-03	**0.01**	0.15	**0.032**	**0.052**	<0.01	0.021	<0.01	<0.01	<0.01
	6/17/2009	8260B	**0.026**	8.5E-03	**0.012**	0.56	**0.078**	**0.078**	0.05	0.057	<0.005	<0.005	5.4E-03
	12/2/2008	8260B	**0.028**	9.7E-03	**0.016**	0.65	**0.037**	**0.053**	0.072	0.026	<0.005	<0.005	4.1E-03
	9/9/2008	8260B	6.4E-03	2.1E-03	**6.4E-03**	0.36	**0.016**	0.023	0.035	0.025	<0.001	<0.001	2.5E-03
	6/17/2008	8260B	**0.015**	<0.01	**0.014**	0.64	**0.033**	**0.05**	0.08	<0.001	<0.001	<0.001	0.009
	3/11/2008	8260B	0.012	3.2E-03	**0.02**	1.7	**0.034**	**0.049**	0.12	0.018	<0.001	<0.001	1.4E-03
EP-3	11/6/2012	8260B	<0.01	<0.01	<0.02	0.24	<0.04	<0.04	<0.1	0.38	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	0.21	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	0.11	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8206B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	0.13	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.005	<0.005	<0.1	0.22	<0.02	<0.02	<0.05	<0.05	<0.005	<0.005	<0.005
	4/20/2010	8260B	<0.001	<0.001	**2.3E-03**	0.21	7.6E-03	0.012	0.014	0.043	<0.001	<0.001	<0.001
	6/17/2009	8260B	1.8E-03	<0.01	<0.01	0.047	6.3E-03	6.1E-03	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	**0.018**	6.5E-03	**0.011**	0.67	**0.024**	**0.035**	0.064	0.028	<0.001	<0.001	2.4E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	0.11	<0.04	<0.04	<1.0	<1.0	<0.1	<0.1	<0.1
	6/17/2008	8260B	0.002	<0.01	**0.003**	0.16	**0.015**	0.023	0.018	0.01	<0.1	<0.1	<0.1
	3/11/2008	8260B	4.3E-03	0.001	**8.7E-03**	0.92	**0.02**	**0.028**	0.064	0.045	<0.001	<0.001	<0.001
EP-4	11/6/2012	8260B	<0.01	<0.01	<0.02	0.13	<0.04	<0.04	<0.1	**0.78**	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01

8.10.5 EVAPORATION PONDS (EP-1 thru EP-12B)
Volatile Organic Compound Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	0.01	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	12	9.7E-03	0.027	4.9	0.72	1.9E-03	0.19	0.78
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
EP-4	11/1/2011	8260B	<0.01	<0.01	<0.02	0.11	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	0.12	<0.04	<0.04	<0.1	0.14	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.001	<0.001	<0.002	0.1	<0.004	<0.004	0.011	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.19	**0.005**	7.3E-03	0.014	0.041	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.02	0.04	<0.04	<0.04	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	0.013	4.8E-03	**7.5E-03**	0.6	**0.014**	0.021	0.043	0.034	<0.001	<0.001	2.3E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.02	0.059	<0.04	<0.04	<0.1	0.05	<0.01	<0.01	<0.01
	3/11/2008	8260B	2.8E-03	<0.01	**6.6E-03**	0.8	**0.015**	0.022	0.042	0.063	<0.001	<0.001	<0.001
EP-5	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	**1.3**	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	0.15	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.001	<0.001	<0.002	0.045	<0.004	<0.004	<0.1	<0.1	<0.01	<0.01	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.13	<0.004	4.6E-03	0.011	0.047	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.02	0.031	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	**0.048**	0.019	**2.5E-03**	0.2	6.1E-03	8.9E-03	0.016	0.015	<0.01	<0.01	1.1E-03
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.01	<0.01	<0.02	0.046	<0.04	<0.04	<0.1	0.033	<0.01	<0.01	<0.01
	3/11/2008	8260B	1.5E-03	<0.001	**3.7E-03**	0.19	**0.011**	0.017	0.023	0.097	<0.01	<0.01	<0.01
EP-6	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.001	<0.001	<0.002	<0.01	<0.004	<0.004	<0.01	<0.01	<0.01	<0.003	<0.001
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.001	<0.001	<0.002	0.02	<0.004	<0.004	<0.1	<0.1	<0.01	<0.01	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.044	<0.004	<0.004	<0.1	<0.1	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.002	<0.01	<0.004	<0.004	<0.1	<0.1	<0.001	<0.001	<0.001
	12/2/2008	8260B	0.001	<0.001	<0.002	<0.01	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	9/9/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	6/17/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.01	<0.01
	3/11/2008	8260B	0.002	<0.001	**0.004**	0.64	**0.015**	0.02	0.032	0.04	<0.01	<0.01	<0.01
EP-7	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.001	<0.001	<0.002	0.061	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.023	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001

8.10.5 EVAPORATION PONDS (EP-1 thru EP-12B)
Volatile Organic Compound Analytical Result Summary

			Parameters										
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	0.01	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	12	9.7E-03	0.027	4.9	0.72	1.9E-03	0.19	0.78
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
EP-7	6/17/2009	8260B	1.1E-03	<0.001	<0.02	0.034	<0.04	<0.04	<0.01	<0.01	<0.001	<0.001	<0.001
	12/2/2008	8260B	1.3E-03	<0.001	<0.02	0.017	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	9/9/2008	8260B	<0.01	<0.01	<0.02	<0.02	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	6/17/2008	8260B	1.2E-03	<0.001	<0.02	0.049	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
	3/11/2008	8260B	<0.001	<0.001	<0.02	0.034	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
EP-8	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.1	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.1	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.1	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	8/2/2010	8260B	<0.001	<0.001	<0.002	0.066	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.038	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	6/17/2009	8260B	<0.001	<0.001	<0.002	0.099	<0.004	<0.004	<0.01	<0.01	<0.001	1.4E-03	<0.001
	12/2/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	9/9/2008	8260B	<0.001	<0.001	<0.002	<0.1	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
	6/17/2008	8260B	1.1E-03	<0.001	<0.002	0.12	<0.004	<0.004	0.014	<0.01	1.4E-03	<0.001	<0.001
	3/11/2008	8260B	<0.001	<0.001	<0.002	0.024	<0.001	<0.001	<0.01	<0.01	<0.001	<0.001	<0.001
EP-9[1]	11/6/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.015	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
EP-11	11/6/2012	8260B	<0.01	<0.01	<0.02	0.12	<0.04	<0.04	<0.1	0.59	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.01	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.03	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	4/20/2010	8260B	<0.001	<0.001	<0.002	0.039	<0.004	<0.004	<0.01	<0.01	<0.001	<0.001	<0.001
EP-12A[1]	11/6/2012	8260B	<0.01	<0.01	<0.02	0.15	<0.04	<0.04	<0.1	0.61	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	0.16	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	<0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	4/20/2011	8260B	<0.001	<0.001	<0.002	0.13	<0.004	<0.004	0.011	0.034	<0.001	<0.001	<0.001
EP-12B[1]	11/6/2012	8260B	<0.01	<0.01	<0.02	0.24	<0.04	<0.04	<0.1	0.47	<0.01	<0.03	<0.03
	5/29/2012	8260B	<0.01	<0.01	<0.02	0.1	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	11/1/2011	8260B	<0.01	<0.01	<0.02	0.16	<0.04	<0.04	<0.1	<0.1	<0.01	<0.03	<0.01
	5/23/2011	8260B	<0.01	<0.01	<0.02	0.18	<0.04	<0.04	<0.1	0.17	<0.01	<0.03	<0.01
	4/20/2011	8260B	1.6E-03	<0.001	**3.4E-03**	0.3	**0.012**	0.019	0.025	0.035	<0.001	<0.001	<0.001

8.10.5 EVAPORATION PONDS (EP-1 thru EP-12B)

Volatile Organic Compound Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	Acetone (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	2-Butanone (mg/L)	Carbon disulfide (mg/L)	Chloroform (mg/L)	Chloromethane (mg/L)	n-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	0.03	NE	NE	NE	NE	NE	0.01	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	0.08	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	12	9.7E-03	0.027	4.9	0.72	1.9E-03	0.19	0.78
SAMPLE ID	DATE SAMPLED	METHOD											

DEFINITIONS

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

Bold and highlighted values represent values above the applicable standards

STANDARDS

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

NOTES:

1) Unapproved monitoring schedule was used at the beginning of 2010 which included the addition of evaporation ponds 9, 11, 12A and 12B.
11/16/10- EP-1 thru EP-12B - Method 8260B Short List analyticals run. No values entered for this date.

8.10.6 EVAPORATION PONDS (EP-1 thru EP-12B)
Semi Volatile Organic Compound Analytical Result Summary

			Parameters														
			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethyl hexyl)phthalate (mg/L)	Carbazole (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	2-Nitrophenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.012	58	1.5	0.048	NE	0.27	0.22	0.027	0.72	NE	1.4E-03	NE	NE	4.5	0.087	0.015
SAMPLE ID	**SAMPLE DATE**	**METHOD**																
EP-1	11/6/2012	8270C	**0.072**	<0.1	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	0.41	0.7	<0.05	<0.05	<0.05	**1.4**	<0.05	<0.05
	5/29/2012	8270C	**0.07**	<0.1	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	0.31	0.7	<0.05	<0.05	0.051	**1.1**	<0.05	<0.05
	11/1/2011	8270C	**0.82**	<0.1	<0.05	<0.05	<0.05	**0.43**	<0.05	<0.05	**2.5**	5.0	<0.05	<0.05	<0.05	**9.7**	<0.5	<0.05
	5/23/2011	8270C	**0.42**	<0.1	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	**2.0**	3.6	<0.05	<0.05	<0.05	**6.4**	<0.5	<0.05
	11/16/2010	8270C	**0.6**	<0.02	<0.01	<0.01	0.017	**0.36**	0.017	**0.18**	**2.1**	4.2	**0.025**	<0.1	0.11	**8.5**	0.012	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.063	<0.05	**0.075**	<0.05	<0.05	<0.05	<0.05	0.11	**0.091**	<0.05	<0.05
EP-2	11/6/2012	8270C	**0.11**	<0.1	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	**0.92**	1.3	<0.05	<0.05	<0.05	**2.3**	<0.05	<0.05
	5/29/2012	8270C	**0.11**	<0.1	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	0.58	0.81	<0.05	<0.05	<0.05	**1.7**	<0.05	<0.05
	11/1/2011	8270C	**0.25**	<0.1	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	**1.1**	2.0	<0.05	<0.05	<0.05	**3.6**	<0.05	<0.05
	5/23/2011	8270C	**0.27**	<0.02	0.02	**0.013**	<0.01	0.18	<0.01	<0.01	**1.2**	2.5	<0.01	<0.01	<0.01	**2.7**	<0.01	<0.01
	11/16/2010	8270C	**0.48**	<0.02	0.011	<0.05	0.01	0.24	<0.05	**0.089**	**1.5**	2.1	**0.027**	<0.01	0.014	**3.3**	<0.01	0.011
	4/20/2010[1]	8270C	<0.05	0.16	<0.05	<0.05	<0.05	0.06	<0.05	**0.075**	**0.88**	1.4	<0.05	0.073	0.1	**2.8**	<0.05	<0.05
EP-3	11/6/2012	8270C	**0.12**	<0.04	0.026	<0.02	<0.02	0.1	<0.02	<0.02	0.52	0.96	<0.02	<0.02	<0.02	**2.0**	<0.02	<0.02
	5/29/2012	8270C	<0.1	<0.02	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	**0.87**	1.6	<0.1	<0.1	<0.1	**3.3**	<0.1	<0.1
	11/1/2011	8270C	**0.21**	<0.1	<0.05	<0.05	<0.05	0.16	<0.05	<0.05	**1.1**	1.5	<0.05	.<0.05	<0.5	**2.9**	<0.05	<0.05
	5/23/2011	8270C	**0.083**	<0.02	<0.01	<0.01	<0.01	0.092	<0.01	<0.01	0.63	1.6	<0.01	<0.01	<0.01	**1.6**	<0.01	<0.01
	11/16/2010	8270C	**0.26**	<0.02	<0.01	<0.01	<0.01	0.14	<0.05	0.026	**0.91**	1.9	<0.01	<0.01	<0.01	**2.4**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.22**	<0.1	<0.05	<0.05	<0.05	0.094	<0.05	<0.05	**0.77**	1.2	<0.05	<0.05	<0.05	**2.8**	<0.05	<0.05
EP-4	11/6/2012	8270C	**0.06**	<0.1	<0.05	<0.05	<0.05	0.072	<0.05	<0.05	0.29	0.53	<0.05	<0.05	<0.05	**1.1**	<0.05	<0.05
	5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	**0.78**	1.2	<0.05	<0.05	<0.05	**2.9**	<0.05	<0.05
	11/1/2011	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	0.64	0.84	<0.05	<0.05	<0.05	**1.1**	<0.05	<0.05
	5/23/2011	8270C	**0.22**	<0.02	<0.01	<0.01	<0.01	**0.28**	<0.01	<0.01	**1.2**	2.8	<0.01	<0.01	<0.01	**2.3**	<0.01	<0.01
	11/16/2010	8270C	**0.21**	<0.02	<0.01	**0.015**	<0.01	0.11	<0.05	<0.01	0.55	1.3	<0.01	<0.01	<0.01	**1.6**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.18**	<0.1	<0.05	<0.05	<0.05	0.073	<0.05	<0.05	0.62	0.96	<0.05	<0.05	<0.05	**2.1**	<0.05	<0.05
EP-5	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.074	<0.05	<0.05	0.27	0.4	<0.05	<0.05	<0.05	**0.9**	<0.05	<0.05
	5/29/2012	8270C	**0.057**	<0.1	<0.05	<005	<0.05	<0.05	<0.05	<0.05	**0.82**	1.1	<0.05	<0.05	<0.05	**2.7**	<0.05	<0.05
	11/1/2011	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	0.089	<0.05	<0.05	<0.05	**0.052**	<0.05	<0.05
	5/23/2011	8270C	**0.11**	<0.02	<0.01	<0.01	<0.01	0.22	<0.01	<0.01	**1.1**	2.6	<0.01	<0.01	<0.01	**1.8**	<0.01	<0.01
	11/16/2010	8270C	**0.12**	<0.1	<0.05	<005	<0.05	0.09	<0.05	<0.05	0.6	1.1	<0.05	<0.05	<0.05	**1.2**	<0.05	<0.05
	4/20/2010[1]	8270C	**0.17**	<0.1	<0.05	<0.05	<0.05	0.074	<0.05	<0.05	0.64	1.0	<0.05	<0.05	<0.05	**2.2**	<0.05	<0.05
EP-6	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	5/29/2012	8270C	**0.036**	<0.02	<0.01	<0.01	<0.01	0.034	<0.01	<0.01	0.43	0.4	<0.01	<0.01	<0.01	**0.72**	<0.01	<0.01
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	5/23/2011	8270C	**0.069**	<0.02	<0.01	**0.019**	<0.01	0.11	<0.01	<0.01	0.56	1.1	<0.01	<0.01	<0.01	**1.3**	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**0.032**	<0.01	<0.01
	4/20/2010[1]	8270C	**0.081**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.3	0.44	<0.05	<0.05	<0.05	**0.38**	<0.05	<0.05
EP-7	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	**0.04**	<0.01	<0.01
	5/23/2011	8270C	<0.01	<0.02	<0.01	**0.019**	<0.01	<0.01	<0.01	<0.01	<0.01	0.045	<0.01	<0.01	<0.01	**0.17**	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.011**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

8.10.6 EVAPORATION PONDS (EP-1 thru EP-12B)
Semi Volatile Organic Compound Analytical Result Summary

			Parameters														
			Aniline (mg/L)	Benzoic acid (mg/L)	Benzyl alcohol (mg/L)	Bis(2-ethyl hexyl)phthalate (mg/L)	Carbazole (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluorene (mg/L)	2-Methyl naphthalene (mg/L)	2-Methyl phenol (mg/L)	3+4-Methyl phenol (mg/L)	Naphthalene (mg/L)	2-Nitrophenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyrene (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	0.006	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.012	58	1.5	0.048	NE	0.27	0.22	0.027	0.72	NE	1.4E-03	NE	NE	4.5	0.087	0.015
SAMPLE ID	**SAMPLE DATE**	**METHOD**																
EP-8	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	11/1/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	**9.7**	<0.01	<0.01
	5/23/2011	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EP-9	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	5/29/2012	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.12	<0.01	<0.01	<0.01	**0.23**	<0.01	<0.01
	11/1/2011	8270C	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	5/23/2011	8270C	<0.02	<0.04	<0.02	**0.022**	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
	11/16/2010	8270C	<0.01	<0.02	<0.01	**0.013**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
EP-11	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.2	0.33	<0.05	<0.05	<0.05	**0.68**	<0.05	<0.05
	5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11/1/2011	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05	0.055	<0.05	<0.05	0.46	0.75	<0.05	<0.05	<0.05	**1.3**	<0.05	<0.05
	5/23/2011	8270C	<0.01	<0.02	<0.01	**0.017**	<0.01	0.065	<0.01	<0.01	0.42	1.1	<0.01	<0.01	<0.01	**2.1**	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	<0.01	<0.02	<0.05	<0.05	<0.05	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05
EP-12A	11/6/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.21	<0.05	<0.05	<0.05	**0.46**	<0.05	<0.05
	5/29/2012	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	11/1/2011	8270C	**0.16**	<0.1	<0.05	<0.05	<0.05	0.15	<0.05	<0.05	**0.94**	1.3	<0.05	<0.05	<0.05	**2.7**	<0.05	<0.05
	5/23/2011	8270C	**0.14**	<0.02	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	**1.2**	2.7	<0.01	<0.01	<0.01	**3.6**	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	4/20/2010[1]	8270C	**0.067**	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.17	<0.05	<0.05	<0.05	**0.016**	<0.05	<0.05
EP-12B	11/6/2012	8270C	**0.093**	<0.1	<0.05	<0.05	<0.05	0.089	<0.05	<0.05	0.46	0.96	<0.05	<0.05	<0.05	**1.8**	<0.05	<0.05
	5/29/2012	8270C	<0.1	<0.02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.33	0.56	<0.1	<0.1	<0.1	**1.1**	<0.05	<0.1
	11/1/2010	8270C	**0.023**	<0.02	<0.01	<0.01	<0.01	0.021	<0.01	<0.01	0.13	0.19	<0.01	<0.01	<0.01	**0.34**	<0.01	<0.01
	5/23/2011	8270C	**0.15**	<0.02	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	**1.1**	2.1	<0.01	<0.01	<0.01	**2.1**	<0.01	<0.01
	11/16/2010	8270C	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.066	0.078	<0.01	<0.01	<0.01	**0.2**	<0.01	<0.01
	4/20/2010[1]	8270C	<0.05	<0.1	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	**0.92**	1.2	<0.05	<0.05	<0.05	**2.7**	<0.05	<0.05

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

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

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

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
WELL ID	DATE SAMPLED	METHOD					
BW-1C	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/31/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2A	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2B	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-2C	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/30/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3B	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/31/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
BW-3C	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/28/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/20/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/6/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/1/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	12/31/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
WELL ID	DATE SAMPLED	METHOD					

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES

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

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
BW-1C	8/24/2012	300.0	**2.3**	34	<0.1	<1.0	<1.0	<0.5	260	NA	NA
	10/28/2011	300.0	**2.6**	33	<0.1	1.7	1.7	<0.5	260	NA	NA
	7/20/2010	300.0	**2.7**	37	0.11	<1.0	<1.0	<0.5	290	8.66	1400
	8/3/2009	300.0	**2.5**	42	0.12	<0.1	<0.1	<0.5	280	8.65	1300
	7/31/2008	300.0	**2.4**	35	<0.1	<1.0	<1.0	<0.5	260	8.68	1400
	12/31/2007	300.0	**2.6**	35	NL	<1.0	<1.0	<0.5	270	8.5	1400
	10/27/2006	300.0	**2.7**	36	NL	<0.5	<0.5	<0.5	NL	8.39	1400
BW-2A	8/24/2012	300.0	**0.95**	38	0.54	<1.0	<1.0	<0.5	6.8	NA	NA
	10/28/2011	300.0	**1.1**	37	0.36	<1.0	<1.0	**0.58**	7.0	NA	NA
	7/20/2010	300.0	**1.2**	42	0.43	<1.0	<1.0	**0.68**	7.1	8.09	1300
	8/3/2009	300.0	**1.2**	45	0.42	<0.1	<0.1	**1.0**	7.2	8.13	1300
	7/30/2008	300.0	**1.1**	40	0.43	<1.0	<1.0	**0.75**	7.3	7.87	1400
	12/31/2007	300.0	**1.3**	42	NL	<1.0	<1.0	**0.7**	7.7	7.76	1400
	10/27/2006	300.0	**1.3**	NL	NL	<0.5	<0.5	**0.64**	7.5	8.27	1400
BW-2B	8/24/2012	300.0	**1.3**	27	0.22	1.4	1.4	<0.5	150	NA	NA
	10/28/2011	300.0	**1.6**	27	0.75	<1.0	<1.0	<0.5	140	NA	NA
	7/20/2010	300.0	**1.8**	32	0.82	<1.0	<1.0	<0.5	160	8.17	2200
	8/3/2009	300.0	**1.7**	36	0.86	<0.1	<0.1	<0.5	160	8.07	2200
	7/30/2008	300.0	**1.6**	30	1.1	<1.0	<1.0	<0.5	150	7.76	2200
	12/31/2007	300.0	**1.8**	30	NL	<1.0	<1.0	<0.5	150	7.77	2400
	10/27/2006	300.0	**1.9**	31	NL	<0.5	<0.5	<0.5	140	8.1	1400
BW-2C	8/24/2012	300.0	**2.0**	41	<0.5	<1.0	<1.0	<0.5	270	NA	NA
	10/28/2011	300.0	**2.0**	43	<0.1	<1.0	<1.0	<0.5	280	NA	NA
	7/20/2010	300.0	**2.1**	62	0.12	<1.0	<1.0	<0.5	310	8.73	1400
	8/3/2009	300.0	**1.9**	52	0.14	<0.1	0.13	<0.5	280	8.88	1300
	7/30/2008	300.0	**1.9**	44	0.14	<1.0	<1.0	<0.5	270	8.83	1400
	12/31/2007	300.0	**2.3**	45	NL	<1.0	<1.0	<0.5	290	8.73	1400
	10/27/2006	300.0	**2.4**	42	NL	<0.5	<0.5	<0.5	270	8.52	1300
BW-3B	8/23/2012	300.0	**1.2**	33	0.39	<1.0	<1.0	**0.82**	46	NA	NA
	10/28/2011	300.0	**1.3**	28	0.31	<1.0	<1.0	**0.84**	48	NA	NA
	7/20/2010	300.0	**1.4**	33	0.42	<0.01	<0.01	**1.1**	54	8.37	1500
	8/3/2009	300.0	**1.5**	41	0.45	<0.1	0.27	**1.4**	69	8.23	1500
	7/31/2008	300.0	**1.4**	34	0.42	<1.0	<1.0	**1.1**	55	7.95	1500
	12/31/2007	300.0	**1.6**	35	NL	<1.0	<1.0	**1.1**	51	7.93	1600

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

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
BW-3B	10/27/2006	300.0	**1.7**	33	NL	<0.5	<0.5	**1.1**	250	8.5	1600
BW-3C	8/23/2012	300.0	**1.1**	38	0.11	<1.0	<1.0	<0.5	310	NA	NA
	10/28/2011	300.0	**1.4**	35	<0.1	<1.0	<1.0	<0.5	320	NA	NA
	7/20/2010	300.0	**1.4**	41	0.12	<0.1	0.12	<0.5	380	8.57	1500
	8/3/2009	300.0	**1.4**	43	0.14	<0.1	0.21	<0.5	320	8.65	1500
	8/1/2008	300.0	**1.5**	34	<1.0	<2.0	<2.0	<5.0	240	8.63	1500
	12/31/2007	300.0	**1.8**	38	NL	<1.0	<1.0	<0.5	300	8.59	1500
	10/27/2006	300.0	**1.9**	37	NL	<0.5	<0.5	<0.5	280	8.39	1400

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

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

NOTES

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

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
BW-1C	8/24/2012	200.7/200.8	<0.0025	0.028	<0.002	NL	**0.22**	6.2E-03	0.49	<0.005	NL	0.068	NL	<0.0025	NL	<0.0002	5.2E-03	0.011
	10/28/2011	200.7/200.8	<0.0025	0.018	<0.002	NL	0.031	<0.006	0.1	<0.005	NL	7.7E-03	NL	<0.0025	NL	<0.0002	4.3E-03	<0.01
	7/20/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	NL	8.3E-03	NL	<0.05	NL	<0.0002	0.003	<0.02
	7/6/2009	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<1.0	2.7E-03	<1.0	<0.05	NL	<0.0002	0.002	<0.05
	7/31/2008	6010B	<0.02	0.016	<0.002	NL	<0.006	<0.006	<0.05	<0.005	0.62	0.013	<1.0	<0.05	310	<0.0002	1.15E-03	<0.02
	12/31/2007	6010B	<0.02	0.023	<0.002	3.6	<0.006	<0.006	<0.05	<0.005	0.74	0.01	<1.0	<0.05	360	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	<0.2	<0.002	3.4	<0.006	<0.006	<0.05	<0.005	<1.0	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-2A	8/24/2012	200.7/200.8	**7.2E-03**	0.15	<0.002	NL	<0.006	<0.006	0.49	<0.005	NL	0.16	NL	<0.0025	NL	<0.0002	<0.0025	<0.01
	10/28/2011	200.7/200.8	**7.2E-03**	0.16	<0.002	NL	<0.006	<0.006	0.87	<0.005	NL	0.19	NL	<0.0025	NL	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.13	<0.002	NL	<0.006	<0.006	0.36	<0.005	NL	0.12	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.15	<0.002	NL	<0.006	<0.006	0.5	<0.005	3.4	0.15	<1.0	<0.05	NL	<0.0002	<0.001	<0.05
	7/30/2008	6010B	<0.02	0.14	<0.002	8.6	<0.006	<0.006	0.37	<0.005	3.2	0.14	<1.0	<0.05	320	<0.0002	<0.001	<0.02
	12/31/2007	6010B	<0.02	0.18	<0.002	11	<0.006	<0.006	0.7	<0.005	3.9	**0.22**	<1.0	<0.05	380	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.15	<0.002	10	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-2B	8/24/2012	200.7/200.8	<0.0025	0.044	<0.002	NL	<0.006	<0.006	0.12	<0.005	NL	0.16	NL	<0.0025	NL	<0.0002	<0.0025	<0.01
	10/28/2011	200.7/200.8	<0.0025	0.056	<0.002	NL	<0.006	<0.006	0.57	<0.005	NL	**0.26**	NL	<0.0025	NL	<0.0002	0.015	<0.01
	7/20/2010	6010B	<0.02	0.047	<0.002	NL	<0.006	<0.006	0.16	<0.005	NL	**0.22**	NL	<0.05	NL	<0.0002	0.012	<0.02
	7/6/2009	6010B	<0.02	0.099	<0.002	NL	<0.006	<0.006	**1.8**	<0.005	4.1	**0.47**	1.8	<0.05	NL	<0.0002	0.013	<0.02
	7/31/2008	6010B	<0.02	0.041	<0.002	13	<0.006	<0.006	0.064	<0.005	3.0	0.16	<1.0	<0.05	570	<0.0002	1.15E-02	<0.02
	12/31/2007	6010B	<0.02	0.07	<0.002	16	<0.006	<0.006	0.62	<0.005	3.6	**0.29**	1.6	<0.05	640	<0.0002	<0.1	<0.02
BW-2C	8/24/2012	200.7/200.8	<0.0025	0.086	**0.013**	NL	0.013	<0.006	**2.9**	<0.005	NL	0.12	NL	<0.0025	NL	<0.0002	4.7E-03	0.025
	10/28/2011	200.7/200.8	<0.0025	0.021	<0.002	NL	8.5E-03	<0.006	0.28	<0.005	NL	0.023	NL	<0.0025	NL	<0.0002	4.3E-03	<0.01
	7/20/2010	6010B	<0.02	0.024	<0.002	NL	0.017	<0.006	0.74	<0.005	NL	0.033	NL	<0.05	NL	<0.0002	0.006	<0.02
	7/6/2009	6010B	<0.02	0.078	<0.002	NL	<0.006	<0.006	0.85	<0.005	1.5	**0.2**	1.1	<0.05	NL	<0.0002	0.005	<0.05
	7/30/2008	6010B	<0.02	0.13	<0.002	24	<0.006	<0.006	**1.3**	<0.005	2.0	**0.43**	1.1	<0.05	300	<0.0002	7.26E-03	<0.02
	12/31/2007	6010B	<0.02	0.026	<0.002	2.9	<0.006	<0.006	0.16	<0.005	0.68	0.024	<1.0	<0.05	340	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.031	<0.002	5.6	<0.006	<0.006	<0.05	<0.005	<1.0	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-3B	8/23/2012	200.7/200.8	**4.4E-03**	0.22	<0.002	NL	0.01	<0.006	**3.6**	<0.005	NL	**0.22**	NL	<0.0025	NL	<0.0002	<0.0025	0.014
	10/28/2011	200.7/200.8	**4.9E-03**	0.093	<0.002	NL	7.5E-03	<0.006	0.82	<0.005	NL	0.086	NL	<0.0025	NL	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.079	<0.002	NL	<0.006	<0.006	0.45	<0.005	NL	0.074	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.098	<0.002	NL	<0.006	<0.006	0.62	<0.005	2.6	0.11	<1.0	<0.05	NL	<0.0002	<0.001	<0.05
	7/31/2008	6010B	<0.02	0.11	<0.002	8.3	<0.006	<0.006	0.43	<0.005	2.6	0.12	<1.0	<0.05	370	<0.0002	<0.001	<0.02

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
BW-3B	12/31/2007	6010B	<0.02	0.099	<0.002	9.0	<0.006	<0.006	0.64	<0.005	2.9	0.13	<1.0	<0.05	430	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.11	<0.002	9.0	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02
BW-3C	8/23/2012	200.7/200.8	<0.0025	0.043	<0.002	NL	<0.006	<0.006	0.34	<0.005	NL	0.022	NL	<0.0025	NL	<0.0002	<0.0025	0.012
	10/28/2011	200.7/200.8	<0.0025	0.036	<0.002	NL	0.007	<0.006	0.16	<0.005	NL	0.018	NL	<0.0025	NL	<0.0002	<0.0025	<0.01
	7/20/2010	6010B	<0.02	0.042	<0.002	NL	6.8E-03	<0.006	0.83	<0.005	NL	0.021	NL	<0.05	NL	<0.0002	<0.001	<0.02
	7/6/2009	6010B	<0.02	0.054	<0.002	NL	<0.006	<0.006	0.19	<0.005	<1.0	0.02	<1.0	<0.05	NL	<0.0002	0.001	<0.02
	8/1/2008	6010B	<0.02	0.27	<0.002	28	7.8E-03	<0.006	**3.0**	<0.005	2.2	**0.41**	1.6	<0.05	350	<0.0002	2.51E-03	0.032
	12/31/2007	6010B	<0.02	0.068	<0.002	4.2	<0.006	<0.006	0.14	<0.005	0.81	0.015	1.1	<0.05	360	<0.0002	<0.1	<0.02
	10/28/2006	6010B	<0.02	0.059	<0.002	6.0	<0.006	<0.006	<0.05	<0.005	NL	NL	<1.0	<0.05	NL	<0.0002	<0.1	<0.02

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

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

NOTES:

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.50E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
BW-1C	8/24/2012	200.7/200.8	<0.001	0.016	<0.002	3.2	<0.006	<0.006	<0.02	<0.005	<1.0	2.9E-03	1.1	<0.001	330	0.005	<0.01
	10/28/2011	200.7/200.8	<0.001	0.016	<0.002	3.2	<0.006	<0.006	<0.02	<0.005	<1.0	<0.002	<1.0	<0.001	330	4.3E-03	0.026
	7/20/2010	6010B	<0.02	<0.02	<0.002	3.2	<0.006	<0.006	<0.02	<0.005	<1.0	9.4E-03	<1.0	<0.05	310	0.003	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2A	8/24/2012	200.7/200.8	**7.2E-03**	0.14	<0.002	8.8	<0.006	<0.006	0.26	<0.005	3.4	0.13	<1.0	0.001	340	<0.001	<0.01
	10/28/2011	200.7/200.8	**6.5E-03**	0.13	<0.002	9.1	<0.006	<0.006	0.28	<0.005	3.3	0.12	<1.0	<0.001	350	<0.001	0.021
	7/20/2010	6010B	<0.02	0.14	<0.002	9.6	<0.006	<0.006	0.29	<0.005	3.5	0.14	<1.0	<0.05	340	<0.001	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2B	8/24/2012	200.7/200.8	**1.1E-03**	0.043	<0.002	13	<0.006	<0.006	0.064	<0.005	3.2	0.16	1.8	1.9E-03	590	0.014	0.03
	10/28/2011	200.7/200.8	<0.001	0.051	<0.002	13	<0.006	<0.006	0.26	<0.005	3.1	**0.25**	1.3	1.3E-03	570	0.016	0.026
	7/20/2010	6010B	<0.02	0.047	<0.002	14	<0.006	<0.006	0.14	<0.005	3.1	**0.22**	1.23	1.2	580	0.012	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-2C	8/24/2012	200.7/200.8	<0.001	0.086	5.6E-03	3.3	<0.006	<0.006	**3.0**	<0.005	1.5	0.049	1.8	<0.001	320	4.8E-03	0.014
	10/28/2011	200.7/200.8	<0.001	0.015	<0.002	2.2	<0.006	<0.006	<0.02	<0.005	1.0	<0.002	<1.0	<0.001	320	4.4E-03	0.015
	7/20/2010	6010B	<0.02	<0.02	<0.002	4.9	<0.006	<0.006	0.028	<0.005	1.3	4.5E-03	<1.0	<0.05	330	0.006	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-3B	8/23/2012	200.7/200.8	**4.9E-03**	0.091	<0.002	8.6	<0.006	<0.006	0.11	<0.005	2.7	0.11	<1.0	0.001	400	<0.001	<0.01
	10/28/2011	200.7/200.8	**4.9E-03**	0.11	<0.002	8.4	<0.006	<0.006	0.97	<0.005	3.0	0.12	<1.0	<0.001	400	<0.001	0.035
	7/20/2010	6010B	<0.02	0.076	<0.002	8.5	<0.006	<0.006	0.21	<0.005	2.6	0.083	<1.0	<0.05	390	<0.001	0.054
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**0.1**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.50E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
BW-3B	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BW-3C	8/23/2012	200.7/200.8	**2.2E-03**	0.035	<0.002	3.9	<0.006	<0.006	0.031	<0.005	<1.0	0.017	1.6	<0.001	390	1.4E-03	0.012
	10/28/2011	200.7/200.8	**1.7E-03**	0.034	<0.002	3.8	<0.006	<0.006	<0.02	<0.005	<1.0	0.014	<1.0	<0.001	380	1.3E-03	0.066
	7/20/2010	6010B	<0.02	0.035	<0.002	3.8	<0.006	<0.006	0.073	<0.005	<1.0	0.013	<1.0	<0.05	370	0.001	<0.05
	7/6/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/1/2008[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/31/2007[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/28/2006[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

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

			Parameters
			Bis(2-ethylhexyl)phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE
40 CFR 141.62 MCL (APR 2013)			0.006
EPA RSL for Tap Water (NOV 2012)			0.048
Well ID	**DATE SAMPLED**	**METHOD**	
BW-3B	8/23/2012	8270C	<0.01
	10/28/2011	8270C	<0.01
	7/20/2010	8270C/8260	<0.01
	7/6/2009	8270C/8260	**0.01**
BW-3C	8/23/2012	8270C	<0.01
	10/28/2011	8270C	**0.014**

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

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

NOTES

8.12 EP-2 INLET

BTEX, DRO/GRO, TDS Analytical Result Summary

			Parameters							
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)	TDS (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**0.2[1]**	**NE**	**1000**
40 CFR 141.62 MCL (APR 2013)			**0.005**	**1.0**	**0.7**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**3.9E-03**	**0.86**	**0.013**	**0.19**	**0.125[2]**	**NE**	**NE**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**								
EP-2 Inlet	8/21/2012[4]	8260B/8015B	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<0.05	**3720**
	10/31/2011	8260B/8015B	<0.005	6.3E-03	<0.005	<0.0075	<0.005	**39**	1.7	**6730**
	7/21/2010	8260B/8015B	<0.005	<0.005	<0.005	<0.0075	<0.005	**21**	0.83	**4120**
	6/17/2009	8260B/8015B	**3.9E-03**	0.02	4.2E-03	0.037	<0.001	**23**	2.0	**2600**
	8/21/2008	8260B/8015B	<0.01	0.026	**0.014**	0.1	<0.01	**290**	10	**2000**
	1/1/2008[3]	8260B/8015B	**0.13**	0.26	**0.044**	**0.26**	5.2E-03	**150**	2.6	**2200**

DEFINITIONS

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

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 6-2 (Unknown oil), TPH Screening Guidelines for Potable Ground Water (GW-1) (JUN 2012).
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
2. NMED Tap Water (JUN 2012)

NOTES

3) Due to inclement weather in December 2007, samples were collected in January 2008.
4) Sample taken from inlet from STP-1.

8.12.1 EP-2 INLET
BOD/COD Analytical Result Summary

			Parameters	
			BOD (mg/L)	COD (mg/L)
20NMAC 6.2.2101			<30	<125
SAMPLE ID	DATE SAMPLED	METHOD		
EP-2 Inlet	8/21/2012[1]	SM5210B/5220C	<2.0	<10.0
	10/31/2011	SM5210B/5220C	**410**	**1520**
	7/21/2010	SM5210B/5220C	**1400**	**3200**
	6/18/2009	SM5210B/5220C	**191**	**1149**
	8/22/2008	SM5210B/5220C	**348**	**1540**
	3/26/2008	SM5210B/5220C	**649**	**1430**
	3/20/2008	SM5210B/5220C	**344**	**829**
	3/11/2008	SM5210B/5220C	**651**	**1150**
	3/6/2008	SM5210B/5220C	**947**	**1520**
	2/28/2008	SM5210B/5220C	**46.1**	**2440**
	2/21/2008	SM5210B/5220C	**>394**	**1950**
	2/14/2008	SM5210B/5220C	**570**	**2290**
	2/7/2008	SM5210B/5220C	**671**	**2570**
	1/31/2008	SM5210B/5220C	**414**	**1290**
	1/25/2008	SM5210B/5220C	**520**	**1200**
	1/18/2008	SM5210B/5220C	**462**	**1460**
	1/11/2008	SM5210B/5220C	**449**	**1350**

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

STANDARDS
20 NMAC 6.2.2101 - General Requirements

NOTES:
1) Sample taken from inlet from STP-1.

8.12.2 EP-2 INLET

Volatile Organic Compound Analytical Result Summary

			Parameters											
			1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	2-Butanone (mg/L)	Carbon Disulfide (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	sec-Butyl benzene (mg/L)
WQCC 20NMAC 6.2.3103 (mg/L)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (NOV 2012)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.015	0.087	1.4E-03	9.7E-03	0.027	12	4.9	0.72	0.39	NE	0.78	0.53	NE
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
EP-2 Inlet	8/21/2012[2]	8260B	<0.001	<0.001	<0.002	<0.004	<0.004	<0.01	<0.01	<0.01	<0.001	<0.001	<0.003	<0.001	<0.001
	10/31/2011	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.86	0.14	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	7/21/2010	8260B	<0.005	<0.005	<0.01	<0.02	<0.02	0.49	<0.05	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005
	6/17/2009	8260B	**0.025**	8.2E-03	**0.011**	**0.057**	**0.061**	0.5	0.046	0.011	<0.001	<0.001	4.4E-03	1.8E-03	<0.001
	8/21/2008	8260B	**0.11**	0.035	**0.02**	**0.3**	**0.34**	1.2	0.14	<.1	<0.01	<0.01	0.029	0.013	<0.001
	1/1/2008[1]	8260B	**0.17**	0.047	**0.25**	**0.46**	**0.75**	<0.05	<0.05	0.14	6.3E-03	0.007	0.044	0.019	7.1E-03

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STANDARDS

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

NOTES

1) Due to inclement weather in December 2007, samples were taken in January 2008.
2) Sample taken from inlet from STP-1.

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
WELL ID	DATE SAMPLED	METHOD					
MW-1	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/6/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/4/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
MW-2	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
MW-4	8/21/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/8/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/5/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2005	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015
MW-5	8/23/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/19/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/15/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/13/2008	8260B	<0.005	<0.001	<0.001	<0.0015	NA
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/12/2005	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0015

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STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Sandards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES

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

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NO 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD									
MW-1	8/24/2012	300.0	0.67	47	<0.1	<1.0	<1.0	<0.5	140	NA	NA
	10/6/2011	300.0	0.64	47	0.11	27	27	<0.5	160	NA	NA
	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/16/2009	300.0	0.76	53	NL	<1.0	<1.0	<0.5	160	9.02	1100
	7/10/2008	300.0	81	51	NL	<1.0	<1.0	<0.5	160	8.95	1100
	12/29/2007	300.0	0.89	53	NL	<1.0	<1.0	<0.5	170	8.89	1100
	5/24/2007	300.0	0.69	53	NL	<1.0	<1.0	<0.5	170	8.89	1100
	10/26/2006	300.0	0.84	46	NL	<1.0	<1.0	<0.5	150	8.98	NL
MW-2	8/24/2012	300.0	0.67	49	<0.1	<1.0	<1.0	<0.5	150	NA	NA
	10/10/2011	300.0	0.79	52	0.12	<1.0	<1.0	<0.5	160	NA	NA
	7/16/2009	300.0	0.82	60	NL	<1.0	<1.0	<0.5	170	9.0	1100
MW-4	8/21/2012	300.0	0.29	16	0.11	<1.0	<1.0	<0.5	140	NA	NA
	10/12/2011	300.0	0.35	18	0.12	6.8	6.8	<0.5	150	NA	NA
	7/19/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2009	300.0	0.37	16	NL	<1.0	<1.0	<0.5	160	8.74	1200
	8/5/2008	300.0	0.37	17	NL	<1.0	<1.0	<0.5	160	8.63	1200
	12/29/2007	300.0	0.42	17	NL	<1.0	<1.0	<0.5	160	8.63	1200
MW-5	8/23/2012	300.0	0.67	55	<0.1	<1.0	<1.0	<0.5	160	NA	NA
	10/10/2011	300.0	0.79	59	0.11	<1.0	<1.0	<0.5	170	NA	NA
	7/19/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009	300.0	0.76	66	NL	<1.0	<1.0	<0.5	180	8.96	1100
	8/13/2008	300.0	0.85	63	0.15	<1.0	<1.0	<0.5	180	9.02	1200
	12/29/2007	300.0	0.91	65	NL	<1.0	<1.0	<0.5	180	8.93	1200

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

			Parameters							
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			1.6	250.0	NE	NE	10	NE	600.0	6 to 9	NE
40 CFR 141.62 MCL (APR 2013)			4.0	NE	NE	10	10	NE	NE	NE	NE
EPA RSL for Tap Water (NO 2012)			0.93	NE	NE	NE	NE	3.1E-04	NE	NE	NE
WELL ID	DATE SAMPLED	METHOD									

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

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

NOTES:

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

			Parameters		
			DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			0.2[1]	NE	NE
WELL ID	DATE SAMPLED	METHOD			
MW-1	8/24/2012	8015B	<1.0	<0.05	<5.0
	10/6/2011	8015B	<1.0	<0.05	
	7/16/2010	8015B	<1.0	<0.05	
	3/1/2010[4]	8015B	<1.0	<0.05	
	7/16/2009	8015B	<1.0	<0.05	
	8/4/2008	8015B	<1.0	<0.05	
	12/29/2007	8015B	<1.0	<0.05	
	10/26/2006	8015B	<1.0	<0.05	
MW-2	8/24/2012	8015B	<1.0	<0.05	<5.0
	10/10/2010	8015B	<1.0	<0.05	
	3/1/2010[4]	8015B	<1.0	<0.05	
MW-4	8/21/2012	8015B	<1.0	<0.05	<5.0
	10/12/2011	8015B	<1.0	<0.05	
	7/19/2010	8015B	<1.0	<0.05	
	3/1/2010[4]	8015B	<1.0	<0.05	
	7/8/2009	8015B	<1.0	<0.05	
	8/5/2008	8015B	<1.0	<0.05	
	12/29/2007	8015B	<1.0	<0.05	
	2006[3]	8015B	NA	NA	
MW-5	8/23/2012	8015B	<1.0	<0.05	<5.0
	10/10/2010	8015B	<1.0	<0.05	
	7/19/2010	8015B	<1.0	<0.05	
	3/1/2010[2]	8015B	<1.0	<0.05	
	7/15/2009	8015B	<1.0	<0.05	
	8/13/2008	8015B	<1.0	<0.05	
	12/29/2007	8015B	<1.0	<0.05	
	2006[3]	8015B	NA	NA	

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

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

			Parameters		
			DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			0.2[1]	NE	NE
WELL ID	DATE SAMPLED	METHOD			

STANDARDS

WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
1) NMED Table 6-2 (Unknown Oil). TPH Screening Guidelines for Potable Ground Water (GW-1). (JUN 2012)
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table

NOTES

2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.

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

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

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

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Sodium (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**NE**	**0.05**	**NE**	**1.0**	**0.05**	**0.2**	**0.05**	**0.2**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**NE**	**0.015**	**NE**	**0.05**	**0.2**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NO 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**NE**	**11**	**NE**	**NE**	**0.078**	**1.4E-03**	**6.3E-04**	**0.047**	**4.7**
WELL ID	**DATE SAMPLED**	**METHOD**													
MW-1	8/24/2012	200.7/200.8	<0.0025	0.014	NL	<0.006	NL	0.078	<0.005	7.1E-03	<0.0025	NA	<0.0002	0.011	<0.01
	10/6/2011	200.7/200.8	<0.0025	0.012	NL	<0.006	260	0.12	<0.005	0.01	<0.0025	NL	<0.0002	0.011	<0.01
	7/16/2010	6010B	**1.46E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<002
	3/1/10[2]	6010B	<0.005	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/16/2009	6010B	**1.24E-03**	0.015	2.1	<0.006	250	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/4/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	<0.01	<0.0002	NL	NL
	12/29/2007	6010B	**0.02**	<0.02	3.2	<0.006	280	0.092	<0.005	0.018	<0.05	<0.01	<0.0002	<0.1	<0.05
	10/26/2006	6010B	NL	0.019	NL	<0.006	NL	NL	<0.005	NL	NL	<0.01	<0.0002	NL	<0.02
MW-2	8/24/2012	200.7/200.8	<0.0025	0.021	NL	<0.006	NL	0.022	<0.005	7.2E-03	<0.0025	NA	<0.0002	9.7E-03	<0.01
	10/10/2011	200.7/200.8	<0.0025	0.02	1.4	<0.006	250	<0.02	<0.005	0.008	<0.0025	NL	<0.0002	9.6E-03	<0.01
	3/1/10[2]	6010B	<0.005	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/16/2009	6010B	**1.04E-03**	0.019	1.6	<0.006	250	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
MW-4	8/21/2012	200.7/200.8	<0.0025	0.02	NL	<0.006	NL	<0.02	<0.005	3.4E-03	<0.0025	NA	<0.0002	0.018	<0.01
	10/12/2011	200.7/200.8	<0.0025	0.022	NL	<0.006	280	<0.02	<0.005	6.9E-03	<0.0025	NL	<0.0002	0.018	<0.01
	7/19/2010	6010B	**1.17E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[2]	6010B	<0.005	0.023	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/8/2009	6010B	<0.001	0.022	1.7	<0.006	280	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/5/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	<0.01	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	0.021	1.9	<0.006	320	<0.05	<0.005	5.2E-03	<0.05	<0.01	<0.0002	<0.1	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	8/23/2012	200.7/200.8	<0.0025	0.026	NL	<0.006	NL	<0.02	<0.005	0.012	<0.0025	NA	<0.0002	9.5E-03	<0.01
	10/10/2011	200.7/200.8	<0.0025	0.024	1.4	<0.006	250	<0.02	<0.005	4.3E-03	<0.0025	NL	<0.0002	9.7E-03	<0.01
	7/19/2010	6010B	**1.36E-03**	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[2]	6010B	<0.005	0.024	NL	<0.006	NL	NL	<0.005	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/15/2009	6010B	<0.001	0.017	1.5	<0.006	260	NL	<0.005	NL	<0.001	<0.01	<0.0002	NL	<0.02
	8/13/2008	6010B	<0.02	<0.02	NL	<0.006	NL	NL	<0.005	NL	<0.05	NL	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	<0.02	1.5	<0.006	290	<0.05	<0.005	4.5E-03	<0.05	<0.01	<0.0002	<0.01	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

NOTES

1) Wells MW-4, MW-5 were not sampled in 2006. Analyses for metals was not conducted in 2006.

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

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

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NO 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
WELL ID	**DATE SAMPLED**	**METHOD**														
MW-1	8/24/2012	200.7/200.8	**1.3E-03**	0.012	<0.002	1.6	<0.006	<0.006	<0.02	<0.005	<0.002	1.0	<0.001	260	0.011	<0.01
	10/6/2011	200.7/200.8	**0.002**	0.01	<0.002	1.7	<0.006	<0.006	<0.02	<0.005	<0.002	<1.0	<0.001	240	0.011	0.11
	7/16/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/4/2008	6010B	<0.02	<0.02	<0.002	1.7	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	260	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.9	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	230	NL	NL
MW-2	8/24/2012	200.7/200.8	<0.001	0.018	<0.002	1.4	<0.006	<0.006	<0.02	<0.005	0.003	<1.0	<0.001	270	0.009	0.019
	10/10/2011	200.7/200.8	<0.001	0.019	<0.002	1.4	<0.006	<0.006	<0.02	<0.005	0.007	<1.0	<0.001	260	9.3E-03	<0.01
	7/16/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/16/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	8/21/2012	200.7/200.8	<0.001	0.019	<0.002	1.8	<0.006	<0.006	<0.02	<0.005	3.1E-03	<1.0	<0.001	290	0.016	0.033
	10/12/2011	200.7/200.8	<0.001	0.021	<0.002	1.7	<0.006	<0.006	<0.02	<0.005	5.8E-03	<1.0	<0.001	290	0.017	0.1
	7/19/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/8/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/5/2008	6010B	<0.02	<0.02	<0.002	1.8	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	280	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.9	<0.006	<0.006	NL	<0.005	NL	<1.0	<0.05	250	NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	8/23/2012	200.7/200.8	<0.001	0.016	<0.002	1.4	<0.006	<0.006	<0.02	<0.005	2.9E-03	<1.0	<0.001	270	9.1E-03	<0.01
	10/10/2011	200.7/200.8	**1.1E-03**	0.016	<0.002	1.4	<0.006	<0.006	<0.02	<0.005	4.4E-03	<1.0	<0.001	270	9.5E-03	0.12
	7/15/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/2010[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/15/2009[2]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/13/2008	6010B	<0.02	<0.02	<0.002	1.4	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	260	NL	<0.05
	12/29/2007	6010B	<0.02	<0.02	<0.002	1.4	<0.006	NL	NL	<0.005	NL	<1.0	<0.05	240	NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

8.13.5 MW-1, MW-2, MW-4, MW-5
Volatile and Semi-Volatile Organic Compound Analytical Result Summary

			Parameters		
			Acetone (mg/L)	Diethyl phthalate (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	0.006
EPA RSL for Tap Water (NOV 2012)			12	11	0.048
WELL ID	DATE SAMPLED	METHOD			
MW-1	8/24/2012	8260/8270C	<0.01	<0.01	<0.01
	10/6/2011	8260B	<0.01	NL	NL
	7/16/2010	8260/8270C	<0.01	1.03E-03	<0.005
	3/1/2010[3]	8260/8270C	<0.0025	NL	<0.005
	7/16/2009	8260/8270C	<0.0025	<0.01	<0.005
	8/4/2008	8260/8270C	<0.0025	<0.0005	<0.0005
	12/29/2007	8260/8270C	<0.0025	<0.01	<0.01
MW-2	8/24/2012	8260/8270C	<0.01	<0.01	<0.01
	10/10/2011	8260B	<0.01	NL	NL
	3/1/2010[3]	8260/8270C	2.73E-03	<0.01	<0.005
	7/16/2009	8260/8270C	<0.0025	<0.01	<0.005
MW-4	8/21/2012	8260/8270C	<0.01	<0.01	<0.01
	10/12/2011	8260B	<0.01	NL	NL
	3/1/2010[3]	8260/8270C	<0.0025	<0.01	<0.005
	7/19/2010	8260/8270C	<0.01	<0.01	<0.005
	7/8/2009	8260/8270C	<0.0025	NL	<0.005
	8/5/2008	8260/8270C	<0.0025	<0.0005	**6.79E-03**
	12/29/2007	8260/8270C	<0.01	<0.01	<0.01
	2006[2]	8260/8270C	NA	NA	NA
MW-5	8/23/2012	8260/8270C	<0.01	<0.01	<0.01
	10/10/2011	8260B	<0.01	NL	NL
	3/1/2010[3]	8260/8270C	3.36E-03	NL	<0.005
	7/19/2010	8260/8270C	<0.01	<0.01	<0.005
	7/15/2009	8260/8270C	4.92E-03	NL	NL
	8/13/2008	8260/8270C	<0.0025	<0.0005	<0.005
	12/29/2007	8260/8270C	<0.001	<0.01	<0.01
	2006[2]	8260/8270C	NA	NA	NA

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

8.13.5 MW-1, MW-2, MW-4, MW-5
Volatile and Semi-Volatile Organic Compound Analytical Result Summary

			Parameters		
			Acetone (mg/L)	Diethyl phthalate (mg/L)	Bis (2-ethylhexyl) phthalate (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	0.006
EPA RSL for Tap Water (NOV 2012)			12	11	0.048
WELL ID	DATE SAMPLED	METHOD			

STANDARDS

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

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

40 CFR 141.62 Detection Limits for Inorganic Contaminants

EPA Regional Screening Level (RSL) Summary Table

NOTES

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

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

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

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
Well ID	DATE SAMPLED	METHOD					
OW-11	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/28/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	8/14/2008	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
	10/24/2006	8260B	<0.001	<0.001	<0.001	<0.0015	<0.0025
OW-12	8/22/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/26/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/22/2010	8021B	<0.001	<0.001	<0.001	<0.002	<0.0025
	7/29/2009	8260B	<0.001	<0.001	<0.001	<0.002	<0.0025
	8/19/2008	8260B	<0.001	<0.001	<0.001	<0.002	<0.001
	12/27/2007	8260B	<0.001	<0.001	<0.001	<0.002	<0.001
	10/27/2006	8260B	<0.001	<0.001	<0.001	<0.001	<0.0025

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES

8.14.1 OW-11, OW-12

General Chemistry Analytical Result Summary

			Parameters								
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**									
OW-11	8/22/2012	300.0	**1.7**	82	0.21	<1.0	<1.0	<10	**940**	NA	NA
	10/26/2011	300.0	**2.2**	95	0.19	<0.1	0.77	<0.5	**940**	NA	NA
	7/28/2010	300.0	**2.8**	89	0.21	<0.1	0.3	<0.5	**1100**	8.39	2800
	7/27/2009	300.0	**2**	97	NL	1.2	1.2	<0.5	**950**	8.41	2500
	8/14/2008	300.0	**2.2**	90	0.29	0.75	0.75	<0.5	**940**	8.39	2600
	12/27/2007	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/24/2006	300.0	**2.5**	86	NL	<0.1	<0.1	<0.5	**1100**	8.4	3100
OW-12	8/22/2012[1]	300.0	0.48	16	0.13	<1.0	<1.0	<0.5	150	NA	NA

DEFINITIONS

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

STANDARDS

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

NOTES

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

8.14.2 OW-11, OW-12

Total Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.078**	**6.3E-04**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
OW-11	8/22/2012	200.7/200.8	<0.0025	8.6E-03	<0.002	NL	<0.006	<0.006	0.041	<0.005	NL	0.095	NL	NL	3.2E-03	<0.0002	**0.22**	<0.01
	10/26/2011	200.7/200.8	<0.0025	7.7E-03	<0.002	NL	<0.006	<0.006	<0.02	<0.005	NL	0.016	NL	NL	0.003	<0.0002	**0.21**	<0.01
	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	NL	0.016	1.8	NL	<0.05	<0.0002	**0.236**	<0.02
	7/27/2009	6010B	**2.02E-03**	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.2	0.016	1.8	640	5.06E-03	<0.0002	**0.216**	<0.02
	8/14/2008	6010B	<0.02	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.3	0.015	1.8	640	<0.05	<0.0002	**0.249**	<0.02
	12/27/2007	6010B	<0.02	<0.01	<0.002	11	<0.006	<0.006	<0.05	<0.005	1.3	0.016	1.6	NL	<0.05	<0.0002	**0.22**	NL
	10/28/2006	6010B	<0.02	<0.02	<0.002	12	<0.006	<0.006	<0.05	<0.005	1.4	NL	NL	NL	<0.05	<0.0002	NL	NL
OW-12	8/22/2012[1]	200.7/200.8	<0.0025	0.028	<0.002	NL	<0.006	<0.006	0.29	<0.005	NL	0.013	NL	NL	<0.0025	<0.0002	0.012	<0.01

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

NOTES

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

8.14.3 OW-11, OW-12
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**NE**	**4.7E-02**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**															
OW-11	8/22/2012	200.7/200.8	2.1E-03	8.4E-03	<0.002	11	<0.006	<0.006	<0.02	<0.005	1.3	0.012	2.0	3.4E-03	640	**0.21**	0.024
	10/26/2011	200.7/200.8	0.002	7.5E-03	<0.002	11	<0.006	<0.006	<0.02	<0.005	1.2	0.016	1.6	3.4E-03	640	**0.22**	0.11
	7/28/2010	6010B	<0.02	<0.02	<0.002	12	<0.006	<0.006	<0.02	<0.005	1.3	0.016	1.8	<0.05	630	**0.215**	<0.05
	7/27/2009[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/08[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/27/2007	6010B	NA	<0.01	NA	11	NA	NA	<0.05	NA	1.3	0.016	1.6	NA	690	**0.22**	NA
	10/28/2006	6010B	NA	<0.02	NA	12	NA	NA	<0.05	NA	1.4	NA	NA	NA	NA	NA	NA
OW-12	8/22/2012[2]	200.7/200.8	1.8E-03	0.021	<0.002	1.8	<0.006	<0.006	0.053	<0.005	<1.0	3.3E-03	<1.0	<0.001	270	0.012	0.031

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

Notes:
1) Analysis 6010B run as Total Recoverable Metals only.
2) Method 200.7/200.8 analysis requested as part of the annual sampling

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

8.15 SMW-2, SMW-4
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
WELL ID	DATE SAMPLED	METHOD					
SMW-2	8/23/2012	8260B	<0.01	<0.01	<0.01	<0.015	0.012
	10/12/2011	8260B	<0.001	<0.001	<0.001	<0.0015	7.9E-03
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	8.8E-03
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2008	8260B	<0.005	<0.001	<0.001	<0.0015	<0.001
	1/1/2008[3]	8260B	<0.001	<0.001	<0.001	<0.0015	9.9E-03
	2006[2]	8260B	NA	NA	NA	NA	NA
SMW-4	8/24/2012	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	10/10/2011	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/16/2010	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	7/27/2009	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	8/14/2008	8260B	<0.005	<0.001	<0.001	<0.0015	<0.001
	12/29/2007	8260B	<0.001	<0.001	<0.001	<0.0015	<0.001
	2006[2]	8260B	NA	NA	NA	NA	NA

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

NOTES
2) Wells SMW-2 and SMW-4 were not sampled in 2006. Analyses for metals were not conducted in 2006.
3) Due to inclement weather in December 2007, annual samples were not collected until January 2008

8.15.1 SMW-2, SMW-4
General Chemistry and DRO/GRO Analytical Result Summary

			Parameters											
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µS/cm)	DRO (mg/L)	GRO (mg/L)	MRO [2] (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 TO 9**	**NE**	**0.2[1]**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
WELL ID	**DATE SAMPLED**	**METHOD**												
SMW-2	8/23/2012	300.0	0.16	**2400**	8.4	<2.0	<2.0	<0.5	**1600**	NA	NA	<1.0	0.28	<5.0
	10/12/2011	300.0	0.22	**2600**	3.1	<10	<10	<0.05	**1600**	NA	NA	<1.0	0.36	
	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
	7/27/2009	300.0	0.32	**2300**	NL	<10	<10	<2.5	**1700**	7.61	7700	<1.0	0.73	
	8/14/2008	300.0	0.36	**2000**	3.1	<1.0	<1.0	<0.5	**1600**	7.25	8700	<1.0	0.36	
	1/1/2008[4]	300.0	0.36	**2000**	NL	<2.0	<2.0	<0.5	**1600**	7.29	9200	<1.0	0.69	
	2006[3]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SMW-4	8/24/2012	300.0	**1.0**	58	0.35	<1.0	<1.0	<0.5	150	NA	NA	<1.0	<0.05	<5.0
	10/10/2011	300.0	**1.1**	**58**	0.2	1.3	1.3	<0.5	170	NA	NA	<1.0	<0.05	
	7/16/2010	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
	3/1/2010[5]	8015B	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<0.05	
	1/0/1900	300.0	**1.2**	58	NL;	<1.0	<1.0	<0.5	170	8.53	1300	<1.0	0.69	
	8/14/2008	300.0	**1.1**	52	0.15	0.11	0.11	<0.5	150	8.63	1200	<1.0	<0.05	
	12/29/2007	300.0	**1.4**	60	NL	<1.0	<1.0	<0.5	180	8.34	1300	<1.0	<0.05	
	2006[3]	300.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

DEFINITIONS	**STANDARDS**
NE = Not established	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
NA = Not analyzed	a) Human Health Standards; b) Other standards for Domestic Water
NL = Not listed on laboratory analysis	1) NMED Table 6-2 (unknown oil). TPH Screening Guidelines for Potable Ground Water (GW-1) (JUN 2012).
	40 CFR 141.62 Detection Limits for Inorganic Contaminants
Bold and highlighted values represent values above the applicable standards	EPA Regional Sreening Level (RSL) Summary Table

NOTES

2) Per NMED "Approval with Modifications Annual Ground Water Monitoring Report 2010, Rev. 1", dated 12/12/12, Comment 7(a) added MRO to data tables.

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

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

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

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

			Parameters															
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.2**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.2**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.078**	**1.4E-03**	**6.3E-04**	**0.047**	**4.7**
WELL ID	**DATE SAMPLED**	**METHOD**																	
SMW-2	8/23/2012	200.7/200.8	**0.005**	0.038	<0.002	NL	**0.17**	<0.006	**1.5**	<0.005	NL	**0.25**	NL	NL	7.2E-03	NL	<0.0002	**0.11**	0.021
	10/12/2011	200.7/200.8	**5.2E-03**	0.031	<0.002	NL	**0.11**	<0.006	0.68	<0.005	NL	0.16	NL	2000	0.011	NL	<0.0002	**0.12**	<0.01
	7/16/2010	6010B	**3.5E-03**	0.022	<0.002	NL	**0.093**	NL	NL	<0.005	NL	NL	NL	NL	<0.001	**5.25E-02**	<0.0002	NL	<0.02
	7/27/2009	6010B	**0.00384**	0.016	<0.002	220	<0.006	NL	NL	6.3E-03	68	NL	1.1	2000	4.7E-03	**6.62E-02**	<0.0002	NL	<0.02
	8/14/2008	6010B	<0.02	<0.02	<0.002	NL	9.2E-03	NL	NL	<0.005	NL	NL	<1.0	NL	<0.05	**6.17E-02**	<0.0002	NL	0.11
	1/1/2008[2]	6010B	<0.02	<0.02	<0.002	200	**0.055**	NL	NL	<0.005	69	NL	1.1	2200	<0.25	**6.51E-02**	<0.0002	NL	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	8/24/2012	200.7/200.8	**3.3E-03**	0.019	<0.002	NL	<0.006	<0.006	0.13	<0.005	NL	4.6E-03	NL	NL	<0.0025	NA	<0.0002	**0.033**	<0.01
	10/10/2011	200.7/200.8	**2.9E-03**	0.037	<0.002	NL	**0.058**	<0.006	0.94	<0.005	NL	0.029	NL	300	<0.0025	NL	<0.0002	**0.037**	0.012
	7/16/2010	6010B	**3.33E-03**	0.027	<0.002	NL	<0.006	NL	NL	<0.005	NL	NL	NL	NL	<0.001	<0.01	<0.0002	NL	<0.02
	3/1/10[3]	6010B	<0.005	0.035	<0.002	NL	8.2E-03	NL	NL	<0.005	NL	NL	NL	NL	<0.005	<0.01	<0.0002	NL	<0.02
	7/27/2009	6010B	**2.97E-03**	0.028	<0.002	4.4	7.5E-03	NL	NL	<0.005	1.4	NL	<1.0	310	<0.001	<0.01	<0.0002	NL	<0.02
	8/14/2008	6010B	<0.02	<0.02	<0.002	NL	<0.006	NL	NL	<0.005	NL	NL	NL	NL	<0.05	<0.01	<0.0002	NL	<0.05
	12/29/2007	6010B	<0.02	0.024	<0.002	4.6	<0.006	NL	NL	<0.005	1.2	NL	<1.0	340	<0.05	<0.01	<0.0002	NL	<0.05
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

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

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

8.15.3 SMW-2, SMW-4

Dissolved Metals Analytical Result Summary

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Sodium (mg/L)	Selenium (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**NE**	**0.05**	**0.2**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3[1]**	**NE**	**0.015[1]**	**NE**	**NE**	**NE**	**NE**	**0.05**	**0.2**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.078**	**1.4E-03**	**0.047**	**4.7**
WELL ID	**DATE SAMPLED**	**METHOD**																
SMW-2	8/23/2012	200.7/200.8	<0.005	0.016	<0.002	260	<0.006	<0.006	0.042	<0.005	84	**0.22**	1.9	2100	7.2E-03	NL	**0.1**	0.029
	10/12/2011	200.7/200.8	**6.4E-03**	0.016	<0.002	230	<0.006	<0.006	<0.1	<0.005	76	**0.24**	<5.0	2200	0.015	NL	**0.11**	0.11
	7/16/2010	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/2009	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2008	6010B	<0.02	<0.02	<0.002	200	<0.006	NL	NL	<0.005	64	NL	<1.0	1900	<0.25	NL	NL	NL
	1/1/2008[2]	6010B	<0.02	<0.02	<0.002	190	<0.006	NL	NL	<0.005	64	NL	1.1	1700	<0.05		NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SMW-4	8/24/2012	200.7/200.8	**2.8E-03**	0.016	<0.002	3.0	<0.006	<0.006	<0.02	<0.005	<1.0	<0.002	<1.0	290	<0.001	NL	**0.03**	<0.01
	10/10/2011	200.7/200.8	0.003	0.02	<0.002	4.2	9.2E-03	<0.006	0.035	<0.005	1.2	4.1E-03	<1.0	300	1.1E-03	NL	**0.032**	0.13
	7/16/2010	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/1/10[3]	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/2009	6010B[4]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	8/14/2008	6010B	<0.02	<0.02	<0.002	3.0	<0.006	NL	NL	<0.005	<1.0	NL	<1.0	280	<0.05	NL	NL	NL
	12/29/2007	6010B	<0.02	<0.02	<0.002	3.6	<0.006	NL	NL	<0.005	<1.0	NL	<1.0	260	<0.05	NL	NL	NL
	2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

DEFINITIONS

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

STANDARDS

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

NOTES

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

8.15.4 SMW-2, SMW-4

Volatile and Semi Volatile Organic Compound Analytical Result Summary

			Parameters					
			Acetone (mg/L)	bis(2-Ethylhexyl) phthalate (mg/L)	Diethylphthalate (mg/L)	Phenol (mg/L)	1,4-Dioxane (mg/L)	Benzenethiol (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**0.005**	**NE**	**NE**
40 CFR 141.62 MCL (APR 2013)			**NE**	**0.006**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**12**	**0.048**	**11**	**4.5**	**6.7E-04**	**0.013**
WELL ID	**DATE SAMPLED**	**METHOD**						
SMW-2	8/23/2012	8260B/8270C	<0.1	<0.01	<0.01	<0.01	NL	NL
	10/12/2011	8260B	<0.01	NA	NA	NA	NA	NA
	7/16/2010	8260B/8270C	<0.01	<0.0001	1.89E-03	<0.001	NL	<0.0005
	7/27/2009	8260B/8270C	6.25E-03	<0.0001	<0.0001	<0.001	<0.001	<0.0005
	11/13/2008	8260B/8270C	7.53E-03	<0.0001	<0.0001	<0.001	<.001	<0.0005
	8/14/2008	8260B/8270C	7.53E-03	<0.0005	5.7E-04	<0.0001	**1.36E-02**	<0.0001
	1/1/2008[2]	8260B/8270C	<0.01	<0.0001	<0.0001	<0.0001	**1.48E-02**	1.9E-04
	2006[1]	8260B/8270C	NA	NA	NA	NA	**NA**	NA
SMW-4	8/24/2012	8260B/8270C	<0.01	<0.01	<0.01	<0.01	NL	NL
	10/10/2011	8260B	<0.01	NA	NA	NA	NA	NA
	7/16/2010	8260B/8270C	<0.01	<0.0001	<0.0001	<0.001	NL	<0.0005
	3/1/2010[3]	8260B/8270C	<0.0025	<0.005	<0.01	<0.01	<0.005	<0.005
	7/27/2009	8260B/8270C	<0.0025	1.05E-03	1.48E-03	<0.001	<0.001	<0.0005
	8/14/2008	8260B/8270C	NA	<0.0001	5.0E-04	1.13E-03	<0.005	<0.0001
	12/29/2007	8260B/8270C	<0.01	<0.0001	<0.0001	<0.0001	<0.005	<0.0001
	2006[1]	8260B/8270C	NA	NA	NA	NA	NA	NA

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

NOTES

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

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

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

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

			Parameters						
			Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)
WQCC 20NMAC 6.2.3103			**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**NE**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.005**	**1.0**	**0.7**	**10**	**NE**	**10**	**10**
EPA RSL for Tap Water (NOV 2012)			**3.9E-03**	**0.86**	**0.013**	**0.19**	**0.125[1]**	**NE**	**NE**
Well ID	**DATE SAMPLED**	**METHOD**							
PW-2	12/15/2011[2]	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0
	10/26/2011	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.1	<0.1
	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0
	12/9/2004	8260B	<0.001	<0.001	<0.001	<0.0015	NA	<1.0	<1.0
PW-3	8/24/2012	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<1.0	<1.0
	10/31/2011	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	NL	<0.1
	9/23/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<1.0	<1.0
	8/21/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	0.13
	1/1/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.2	<0.2
	10/27/2006	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.2	<0.2
PW-4	7/28/2010	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.001	<0.01	0.14
	9/12/2008	8260B/Anions	<0.001	<0.001	<0.001	<0.0015	<0.01	<0.01	<0.02
	8/4/2004	8260B	<0.001	<0.001	<0.001	<0.0015	NA	<0.01	<0.02

DEFINITIONS	**STANDARDS**
NE = Not established	WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
NA = Not analyzed	a) Human Health Standards; b) Other Standards for Domestic Water
NL = Not listed on laboratory analysis	40 CFR 141.62 Detection Limits for Inorganic Contaminants
Bold and highlighted values represent values above the applicable standards.	EPA Regional Screening Level (RSL) Summary Table
	1. NMED Tap Water (JUN 2012)

NOTES

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

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

			Parameters														
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Mercury (mg/L)	Cyanide (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.002**	**0.2**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**0.05**	**NE**	**0.002**	**0.2**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**NE**	**6.30E-04**	**1.4E-03**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**																
PW-2	12/15/2011[1]	200.7/200.8	**5.5E-03**	0.12	<0.002	NL	<0.006	<0.006	0.74	<0.005	0.011	NL	<0.0025	NL	<0.0002	<0.01	<0.0025	<0.01
	10/26/2011[1]	200.7/200.8	<0.0025	0.016	<0.002	NL	<0.006	<0.006	0.29	<0.005	0.058	NL	<0.0025	NL	<0.0002	<0.01	<0.0025	<0.01
	9/12/2008	6010B	<0.02	0.013	<0.002	NL	<0.006	<0.006	0.07	<0.005	<0.002	NL	<0.05	NL	<0.0002	<0.01	1.6E-03	<0.05
PW-3	8/24/2012	200.7/200.8	**0.004**	0.011	<0.002	NL	<0.006	<0.006	0.24	<0.005	<0.002	NL	<0.0025	NL	<0.0002	8.5E-03	<0.0025	0.027
	10/31/2011	200.7/200.8	**3.5E-03**	0.01	<0.002	NL	<0.006	<0.006	0.09	<0.005	0.003	NL	1.20E-03	NL	<0.0002	<0.01	1.4E-03	0.023
	9/23/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	0.032	0.47	7.4E-03	4.6E-03	NL	<0.05	NL	<0.0002	<0.005	0.001	0.037
	8/21/2008	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<0.0002	NL	<0.25	NL	<0.0002	<0.004	<6.3E-04	<0.05
	1/1/2008	6010B	<0.02	0.014	<0.002	190	<0.006	<0.006	0.2	5.6E-03	0.015	1.2	<0.5	15	<0.0002	<0.01	<0.1	0.041
	10/27/2006	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	<0.05	<0.005	<0.0002	NL	<0.05	NL	<0.0002	<0.01	<0.1	<0.05
PW-4	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.23	<0.005	4.4E-03	NL	<0.05	NL	<0.0002	<0.01	2.1E-03	<0.02
	9/12/2008	6010B	<0.02	0.013	<0.002	NL	<0.006	<0.006	0.11	<0.005	0.005	NL	<0.05	NL	<0.0002	<0.01	1.4E-03	<0.02

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

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

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

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

			Parameters												
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**NE**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**0.05**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**0.078**	**NE**	**0.047**	**4.7**
Well ID	**DATE SAMPLED**	**METHOD**														
PW-2	12/15/2011[2]	200.7/200.8	**2.7E-03**	0.014	<0.002	NL	<0.006	<0.006	0.23	<0.005	0.006	NL	<0.001	NL	1.9E-03	0.053
	10/26/2011	200.7/200.8	<0.001	0.016	<0.002	NL	<0.006	<0.006	<0.02	<0.005	0.06	NL	<0.001	NL	2.2E-03	0.045
	9/12/2008[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-3	8/24/2012	200.7/200.8	**3.4E-03**	0.011	<0.002	240	<0.006	<0.006	0.042	<0.005	<0.002	1.3	1.2E-03	59	1.5E-03	0.03
	10/31/2011	200.7/200.8	**3.3E-03**	0.011	<0.002	NL	<0.006	<0.006	0.079	<0.005	3.5E-03	NL	1.2E-03	NL	1.4E-03	0.06
	9/23/2010	6010B	<0.02	<0.02	<0.002	240	<0.006	<0.006	0.098	<0.005	<0.002	1.5	<0.05	50	0.001	<0.05
	8/23/2008[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/1/2008[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/27/2006[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PW-4	7/28/2010	6010B	<0.02	<0.02	<0.002	NL	<0.006	<0.006	0.09	<0.005	3.6E-03	NL	<0.05	NL	1.46E-03	0.086
	9/12/2008[1]	6010B	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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

NOTES:
1) Analysis 6010B run as Total Recoverable Metals only.
2) PW-2 was re-sampled on 12/15/2011 due to detection of PCE during the Annual sampling event on 10/26/2011.
In the field blank submitted with the 10/26/11 sampling, toluene was detected at 0.0017 ppm.

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

Volatile and Semi Volatile Organic Compound Analytical Result Summary

			Parameters						
			2,4-Dimethylphenol (mg/L)	2-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Tetrachloroethene (PCE) (mg/L)
WQCC 20NMAC 6.2.3103			**NE**	**NE**	**NE**	**NE**	**NE**	**0.005**	**0.02**
40 CFR 141.62 MCL (APR 2013)			**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**0.005**
EPA RSL for Tap Water (NOV 2012)			**0.27**	**0.027**	**0.72**	**NE**	**NE**	**4.5**	**9.7E-03**
Well ID	**DATE SAMPLED**	**METHOD**							
PW-2	12/15/2011[5]	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001
	10/26/2011	8270C/8260B	<0.01	<0.004	<0.01	<0.01	<0.01	<0.01	7.3E-03[4]
PW-3	8/24/2012	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001
	10/31/2011	8270C/8260B	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	11/1/2010[3]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	9/23/2010[2]	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	8/21/2008	8270C	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
	1/1/2008[1]	8270C	0.016	**0.032**	0.21	0.36	0.017	**0.8**	

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

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

NOTES

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

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

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

4) Constituent detected for the first time during the Annual Sampling Event. In the field blank submitted, toluene was detected at 0.0017 mg/L.

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

8.17 RW-1, RW-2, RW-5, RW-6
BTEX Analytical Result Summary

			Parameters				
			Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)
WQCC 20NMAC 6.2.3103			0.01	0.75	0.75	0.62	NE
40 CFR 141.62 MCL (APR 2013)			0.005	1.0	0.7	10	NE
EPA RSL for Tap Water (NOV 2012)			3.9E-03	0.86	0.013	0.19	0.125[1]
SAMPLE ID	DATE SAMPLED	METHOD					
RW-1[2]	8/23/2012	8260B	**45**	**82**	**4.9**	**31**	**3.1**
	10/3/2011	8260B	**51**	**37**	**3.7**	**23**	**2.9**
RW-2[2]	8/24/2012	8260B	**42**	**2.6**	**0.59**	**1.7**	**3.3**
	10/3/2011	8260B	**39**	**5.3**	**0.57**	**1.5**	**3.7**
RW-5[2]	8/23/2012	8260B	**0.19**	<0.01	**0.26**	0.091	0.032
	10/4/2011	8260B	**0.56**	<0.01	**0.21**	**1.5**	0.095
RW-6[2]	8/23/2012	8260B	**0.74**	0.052	**0.4**	**1.6**	0.073
	10/4/2011	8260B	**0.87**	0.029	**0.33**	<0.015	<0.01

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

STANDARDS
WQCC 20 NMAC 6.2.3103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other standards for Domestic Water
40 CFR 141.62 Detection Limits for Inorganic Contaminants
EPA Regional Screening Level (RSL) Summary Table
1. NMED Tap Water (JUN 2012)

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

8.17.1 RW-1, RW-2, RW-3, RW-5

General Chemistry Analytical Result Summary

			Parameters						
			Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)
WQCC 20NMAC 6.2.3103			**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**
40 CFR 141.62 MCL (APR 2013)			**4.0**	**NE**	**NE**	**10**	**10**	**NE**	**NE**
EPA RSL for Tap Water (NOV 2012)			**0.93**	**NE**	**NE**	**NE**	**NE**	**3.1E-04**	**NE**
SAMPLE ID	**DATE SAMPLED**	**METHOD**							
RW-1[1]	8/23/2012	300.0	<0.5	**380**	3.8	<1.0	<1.0	<2.5	<2.5
	10/3/2011	300.0	<0.5	**410**	3.3	**220**	**220**	<2.5	<2.5
RW-2[1]	8/24/2012	300.0	<0.5	90	1.7	<1.0	<1.0	<2.5	<2.5
	10/3/2011	300.0	<0.5	130	2.5	**67**	**67**	<2.5	<2.5
RW-5[1]	8/23/2012	300.0	0.8	11	<0.5	<1.0	<1.0	<2.5	<2.5
	10/4/2011	300.0	0.54	26	0.86	**14**	**14**	<2.5	<2.5
RW-6[1]	8/23/2012	300.0	<0.5	45	0.95	<1.0	<1.0	<2.5	<2.5
	10/4/2011	300.0	<0.5	80	0.91	<1.0	<1.0	<2.5	<2.5

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

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

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

8.17.2 RW-1, RW-2, RW-5, RW-6
Total Metals Analytical Result Summary

			Parameters											
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Manganese (mg/L)	Selenium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**0.05**	**1.0**	**1.0**	**0.05**	**0.2**	**0.05**	**0.05**	**0.002**	**0.03**	**10**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**0.05**	**NE**	**0.002**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**0.078**	**0.071**	**6.3E-04**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**													
RW-1[1]	8/23/2012	200.7/200.8	**0.01**	**3.7**	<0.002	<0.006	<0.006	**6.9**	<0.005	**3.6**	5.7E-03	<0.005	<0.0002	4.1E-03	<0.01
	10/3/2011	200.7/200.8	**0.01**	**4.8**	<0.002	<0.006	0.035	**4.6**	<0.005	**3.3**	7.5E-03	<0.005	**0.012**	4.3E-03	0.06
RW-2[1]	8/24/2012	200.7/200.8	**6.9E-03**	**3.7**	<0.002	<0.006	<0.006	**10**	<0.005	**2.1**	4.4E-03	<0.005	<0.0002	<0.0025	<0.01
	10/3/2011	200.7/200.8	**6.1E-03**	**3.1**	<0.002	<0.006	9.8E-03	**11**	<0.005	**2.2**	6.9E-03	<0.005	**2.3E-03**	<0.0025	0.028
RW-5[1]	8/23/2012	200.7/200.8	**3.3E-03**	**3.1**	<0.002	<0.006	<0.006	**5.0**	<0.005	**0.76**	<0.0025	<0.005	<0.0002	<0.0025	<0.01
	10/4/2011	200.7/200.8	**6.3E-03**	**3.7**	<0.002	<0.006	<0.006	**7.8**	<0.005	**0.97**	<0.0025	<0.005	<0.0002	<0.0025	0.013
RW-6[1]	8/23/2012	200.7/200.8	**0.015**	**3.7**	<0.002	<0.006	<0.006	**7.4**	9.3E-03	**0.89**	<0.0025	<0.005	<0.0002	<0.0025	<0.01
	10/4/2011	200.7/200.8	**0.017**	**4.2**	<0.002	<0.006	<0.006	**11**	9.3E-03	**1.1**	<0.0025	<0.005	<0.0002	<0.0025	<0.01

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

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

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

8.17.3 RW-1, RW-2, RW-5, RW-6
Dissolved Metals Analytical Result Summary

			Parameters													
			Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)	Manganese (mg/L)	Potassium (mg/L)	Selenium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Uranium (mg/L)	Zinc (mg/L)
WQCC 20NMAC 6.2.3103			**0.1**	**1.0**	**0.01**	**NE**	**0.05**	**1.0**	**1.0**	**0.05**	**NE**	**0.2**	**NE**	**0.05**	**0.05**	**NE**	**0.03**	**10.0**
40 CFR 141.62 MCL (APR 2013)			**0.01**	**2.0**	**NE**	**NE**	**NE**	**1.3**	**NE**	**0.015**	**NE**	**NE**	**NE**	**0.05**	**NE**	**NE**	**0.03**	**NE**
EPA RSL for Tap Water (NOV 2012)			**4.5E-05**	**2.9**	**NE**	**NE**	**1.6**	**0.62**	**11**	**NE**	**NE**	**NE**	**NE**	**0.078**	**0.071**	**NE**	**0.047**	**4.7**
SAMPLE ID	**DATE SAMPLED**	**METHOD**																
RW-1[1]	8/23/2012	200.7/200.8	**0.009**	**3.6**	<0.002	210	<0.006	<0.006	**7.6**	<0.005	39	**3.6**	1.3	6.2E-03	<0.005	250	4.1E-03	0.021
	10/3/2011	200.7/200.8	**7.1E-03**	**5.0**	<0.002	230	<0.006	<0.006	**5.2**	<0.005	40	**3.3**	1.1	0.013	<0.005	260	2.8E-03	0.067
RW-2[1]	8/24/2012	200.7/200.8	**7.3E-03**	**3.5**	<0.002	130	<0.006	<0.006	**10**	<0.005	25	**2.1**	<1.0	4.6E-03	<0.005	200	<0.001	0.023
	10/3/2011	200.7/200.8	**0.006**	**2.8**	<0.002	130	<0.006	<0.006	**6.1**	<0.005	22	**2.0**	<1.0	0.01	<0.005	210	<0.001	<0.01
RW-5[1]	8/23/2012	200.7/200.8	**2.2E-03**	**2.7**	<0.002	52	<0.006	<0.006	**3.7**	<0.005	9.9	**0.7**	<1.0	0.001	<0.005	190	<0.001	0.017
	10/4/2011	200.7/200.8	**4.8E-03**	**3.1**	<0.002	75	<0.006	<0.006	**5.4**	<0.005	14	**0.89**	<1.0	3.5E-03	<0.005	210	<0.005	<0.01
RW-6[1]	8/23/2012	200.7/200.8	**0.015**	**3.7**	<0.002	77	<0.006	<0.006	**8.3**	9.1E-03	15	**0.92**	<1.0	1.6E-03	<0.005	290	<0.001	0.021
	10/4/2011	200.7/200.8	**0.016**	0.021	<0.002	16	0.02	<0.006	**4.9**	<0.005	12	0.02	0	4.4E-03	<0.005	270	<0.005	<0.01

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

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

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

8.17.4 RW-1, RW-2, RW-5, RW-6
Volatile Organic Compound Analytical Result Summary

			Parameters									
			1,2,4-Trimethyl-benzene (mg/L)	1,3,5-Trimethyl-benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Chloromethane (mg/L)	Isopropyl benzene (mg/L)	4-Isopropyl toluene (mg/L)	n-Propyl benzene (mg/L)	Sec-butylbenzene (mg/L)	Styrene (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	**0.1**
EPA RSL for Tap Water (NOV 2012)			**0.015**	**0.087**	**1.4E-03**	**9.7E-03**	**0.027**	**0.19**	**0.39**	NE	**0.53**	NE	**1.1**
SAMPLE ID	**DATE SAMPLED**	**METHOD**											
RW-1[1]	8/23/2012	8260B	**2.8**	<1.0	<2.0	<4.0	<4.0	<0.03	<0.01	<0.01	<0.01		<0.01
	10/3/2011	8260B	**5.8**	**0.98**	**0.6**	**0.071**	**0.15**	<0.03	<0.01	<0.01	0.4		0.013
RW-2[1]	8/24/2012	8260B	<0.1	<0.1	<0.2	<0.4	<0.4	<0.3	<0.1	<0.1	<0.1		<0.1
	10/3/2011	8260B	**0.098**	0.024	**0.057**	**0.054**	<0.04	0.14	<0.01	<0.01	0.036		<0.01
RW-5[1]	8/23/2012	8260B	**0.054**	0.016	**0.11**	**0.11**	**0.17**	<0.03	0.018	<0.01	0.068	0.013	<0.01
	10/4/2011	8260B	**0.13**	0.046	**0.17**	**0.11**	**0.16**	<0.03	0.017	0.01	0.04		<0.01
RW-6[1]	8/23/2012	8260B	**0.38**	**0.17**	**0.58**	**0.22**	**0.36**	<0.15	<0.05	<0.05	0.074	<0.05	<0.05
	10/4/2011	8260B	**0.42**	**0.16**	**0.52**	**0.21**	**0.31**	<0.03	0.043	0.015	0.078		<0.01

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

NOTES:

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

8.17.5 RW-1, RW-2, RW-5, RW-6
Semi-Volatile Organic Compound Analytical Result Summary

			Parameters										
			Aniline (mg/L)	Benzoic Acid (mg/L)	Benzyl Alcohol (mg/L)	2,4-Dimethylphenol (mg/L)	2-Methyl naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylphenol (mg/L)	3+4-Methylphenol (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Phenol (mg/L)	Pyridine (mg/L)
WQCC 20NMAC 6.2.3103			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.005	NE
40 CFR 141.62 MCL (APR 2013)			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
EPA RSL for Tap Water (NOV 2012)			0.012	58	1.5	0.27	0.027	9.7E-03	0.72	NE	1.4E-03	NE	4.5	0.015
SAMPLE ID	**DATE SAMPLED**	**METHOD**												
RW-1[1]	8/23/2012	8270C	**0.16**	<0.2	<0.1	0.21	**0.61**	**0.3**	0.24	0.16	**0.89**	0.02	**0.11**	**0.031**
	10/3/2011	8270C	<0.1	<0.2	<0.1	<0.1	**1.1**	**0.5**	<0.1	<0.1	**1.3**	<0.1	<0.1	
RW-2[1]	8/24/2012	8270C	**0.21**	<0.02	<0.01	0.22	<0.01	**0.043**	0.028	0.025	**0.043**	<0.01	**0.091**	
	10/3/2011	8270C	**0.15**	0.021	<0.01	0.16	<0.01	**0.023**	0.09	0.032	**0.026**	<0.01	**0.038**	
RW-5[1]	8/23/2012	8270C	<0.01	<0.02	<0.01	<0.01	**0.11**	**0.088**	<0.01	<0.01	**0.079**	<0.01	<0.01	
	10/4/2011	8270C	<0.01	<0.02	<0.01	<0.01	**0.13**	**0.1**	<0.01	<0.01	**0.11**	<0.01	<0.01	
RW-6[1]	8/23/2012	8270C	<0.01	<0.02	<0.01	<0.01	**0.65**	**0.49**	<0.01	<0.01	**0.55**	<0.01	<0.01	
	10/4/2011	8270C	<0.1	<0.2	<0.1	<0.1	**0.59**	**0.42**	<0.1	<0.1	**0.46**	<0.1	<0.1	

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

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

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

SECTION 9

WELL DATA SUMMARY TABLE

The 2012 Well Data DTB/DTW Measurements Summary Table has been updated with information submitted to and approved by NMED per notification received "Approval with Modifications, Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells issued on September 26, 2012. Western was required to resurvey the monitoring wells due to discrepancies found in reporting ground level elevation, well casing elevation, well casing bottom elevation and stick up lengths. All monitoring wells were surveyed by a licensed professional surveyor, DePauli Engineering on June 7, 2011. The Well Data Summary Table is attached as Section 9.1.

2012 WELL DATA DTB/DTW MEASUREMENTS
ANNUAL/QUARTERLY

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter[1] (Inch)	A Ground Level Elevations (ft)	Well Casing Rim Elevations[1] (ft)	Ground Elevation Inside Steel Sleeve[1] (ft)	Stick-up length (ft)	Well Casing Bottom Elevations [1] (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness [2] (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
11/10/2003	BW-1A	8/23/2012	2.00	6,874.10	6,876.68	6,872.30	4.38	6,839.06	37.62	N/A	N/A	0.00	DRY	N/A	30 - 35	Upper Sand	N/A
10/28/2003	BW-1B	8/23/2012	2.00	6,874.13	6,876.94	6,876.26	0.68	6,809.49	67.45	N/A	N/A	0.00	DRY	N/A	54.6 - 64.6	Chinle/Alluvium Interface	N/A
11/10/2003	BW-1C	8/24/2012	2.00	6,873.95	6,876.78	6,872.28	4.50	6,740.39	136.39	N/A	N/A	7.30	6,866.65	N/A	125 -135	Sonsela	63.11
11/10/2003	BW-2A	8/24/2012	2.00	6,871.88	6,874.69	6,870.45	4.24	6,807.12	67.57	N/A	N/A	32.26	6,839.62	N/A	55 - 65	Upper Sand	17.27
10/28/2003	BW-2B	8/24/2012	2.00	6,871.66	6,874.50	6,870.06	4.44	6,782.24	92.26	N/A	N/A	27.83	6,843.83	N/A	80 - 90	Chinle/Alluvium Interface	3151
10/28/2003	BW-2C	8/24/2012	2.00	6,872.90	6,875.30	6,872.02	3.28	6,722.46	152.84	N/A	N/A	20.35	6,852.55	N/A	139.5 - 149.5	Sonsela	64.79
6/15/2004	BW-3A	8/23/2012	2.00	6,875.94	6,878.39	6,875.08	3.31	6,826.04	52.35	N/A	N/A	0.00	DRY	N/A	39.5 - 49.5	Upper Sand	N/A
10/15/2003	BW-3B	8/23/2012	2.00	6,876.16	6,878.59	6,875.41	3.18	6,809.19	69.40	N/A	N/A	33.13	6,843.03	N/A	63 - 73	Chinle/Alluvium Interface	17.74
7/20/2004	BW-3C	8/23/2012	2.00	6,875.72	6,877.95	6,875.27	2.68	6,723.40	154.55	N/A	N/A	7.77	6,867.95	N/A	144.5 - 154.5	Sonsela	71.78
9/25/1981	OW-11	8/22/2012	4.00	6,922.05	6,923.51	6,921.80	1.71	6,857.72	65.79	N/A	N/A	21.05	6,901.00	N/A	43 - 65	Sonsela	99.32
12/15/1980	OW-12	8/22/2012	4.00	6,939.57	6,940.69	6,939.04	1.65	6,811.84	128.85	N/A	N/A	48.13	6,891.44	N/A	117.8 - 137.8	Sonsela	179.2
10/14/1981	MW-1	8/23/2012	5.00	6,876.63	6,878.12	6,876.79	1.33	6,747.29	130.83	N/A	N/A	7.70	6,868.93	N/A	117.72 - 127.72	Sonsela	376.78
10/15/1981	MW-2	8/23/2012	5.00	6,878.39	6,880.30	6,878.41	1.89	6,742.82	137.48	N/A	N/A	9.97	6,868.42	N/A	112 - 122	Sonsela	390.18
10/16/1981	MW-4	8/20/2012	5.00	6,879.89	6,881.63	6,879.34	2.29	6,759.91	121.72	N/A	N/A	7.76	6,872.13	N/A	101 - 121	Sonsela	348.74
7/21/1986	MW-5	8/22/2012	4.00	6,880.20	6,882.83	6,881.77	1.06	6,752.00	130.83	N/A	N/A	11.40	6,868.80	N/A	115 - 125	Sonsela	265.13
9/26/1985	SMW-2	8/23/2012	2.00	6,881.63	6,883.97	6,879.07	4.90	6,831.17	52.80	N/A	N/A	25.20	6,856.43	N/A	34.31 - 54.31	Chinle/Alluvium and Upper Sand	13.5
9/25/1985	SMW-4	8/24/2012	2.00	6,877.63	6,879.52	6,875.72	3.80	6,809.84	69.68	N/A	N/A	29.16	6,848.47	N/A	51.7 - 71.7	Chinle/Alluvium Interface	19.8
1/5/1981	OW-1	3/22/2012	4.00	6,866.32	6,866.62	6,866.44	0.18	6,772.07	94.55	N/A	N/A	3.40	6,862.92	N/A	89.3 - 99.3	Sonsela	177.7
		6/13/2012	4.00	6,866.32	6,866.62	6,866.44	0.18	6,772.07	94.55	N/A	N/A	3.38	6,862.94	N/A	89.3 - 99.3	Sonsela	177
		8/22/2012	4.00	6,866.32	6,866.62	6,866.44	0.18	6,772.07	94.55	N/A	N/A	0.00	6,866.32	N/A	89.3 - 99.3	Sonsela	209.9
		11/27/2012	4.00	6,866.32	6,866.62	6,866.44	0.18	6,772.07	94.55	N/A	N/A	0.12	6,866.20	N/A	89.3 - 99.3	Sonsela	210
11/25/1980	OW-10	3/22/2012	4.00	6,873.67	6,874.91	6,872.59	2.32	6,814.58	60.33	N/A	N/A	0.50	6,873.17	N/A	40 - 60	Sonslea	132.82
		6/13/2012	4.00	6,873.67	6,874.91	6,872.59	2.32	6,814.58	60.33	N/A	N/A	1.67	6,872.00	N/A	40 - 60	Sonsela	114
		8/22/2012	4.00	6,873.67	6,874.91	6,872.59	2.32	6,814.58	60.33	N/A	N/A	2.45	6,871.22	N/A	40 - 60	Sonsela	128.49
		11/27/2012	4.00	6,873.67	6,874.91	6,872.59	2.32	6,814.58	60.33	N/A	N/A	3.25	6,870.42	N/A	40 - 60	Sonsela	126.72

2012 WELL DATA DTB/DTW MEASUREMENTS
ANNUAL/QUARTERLY

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter[1] (Inch)	A Ground Level Elevations (ft)	Well Casing Rim Elevations[1] (ft)	Ground Elevation Inside Steel Sleeve[1] (ft)	Stick-up length (ft)	Well Casing Bottom Elevations [1] (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness [2] (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
12/10/1980	OW-13	3/21/2012	4.00	6,918.95	6,920.07	6,915.33	4.74	6,820.92	99.15	N/A	N/A	22.50	6,896.45	N/A	78.2 - 98.2	Sonsela	170
		6/14/2012	4.00	6,918.95	6,920.07	6,915.33	4.74	6,820.92	99.15	N/A	N/A	22.64	6,896.31	N/A	78.2 - 98.2	Sonsela	150
		8/23/2012	4.00	6,918.95	6,920.07	6,915.33	4.74	6,820.92	99.15	N/A	N/A	23.10	6,895.85	N/A	78.2 - 98.2	Sonsela	168.83
		11/27/2012	4.00	6,918.95	6,920.07	6,915.33	4.74	6,820.92	99.15	N/A	N/A	22.90	6,896.05	N/A	78.2 - 98.2	Sonsela	169.28
12/17/1980	OW-14	3/21/2012	4.00	6,924.55	6,926.65	6,924.40	2.25	6,880.13	46.52	N/A	N/A	24.92	6,899.63	N/A	35 - 45	Chinle/Alluvium Interface	48
		6/14/2012	4.00	6,924.55	6,926.65	6,924.40	2.25	6,880.13	46.52	N/A	N/A	24.93	6,899.62	N/A	35 - 45	Chinle/Alluvium Interface	42
		8/23/2012	4.00	6,924.55	6,926.65	6,924.40	2.25	6,880.13	46.52	N/A	N/A	25.11	6,899.44	N/A	35 - 45	Chinle/Alluvium Interface	47.53
		11/27/2012	4.00	6,924.55	6,926.65	6,924.40	2.25	6,880.13	46.52	N/A	N/A	25.05	6,899.50	N/A	35 - 45	Chinle/Alluvium Interface	47.66
8/23/1996	OW-29	3/21/2012	4.00	6,913.89	6,917.00	6,912.09	4.91	6,865.92	51.08	N/A	N/A	19.80	6,894.09	N/A	37.5 - 47.5	Chinle/Alluvium Interface	61
		6/13/2012	4.00	6,913.89	6,917.00	6,912.09	4.91	6,865.92	51.08	N/A	N/A	19.88	6,894.01	N/A	37.5 - 47.5	Chinle/Alluvium Interface	61
		8/23/2012	4.00	6,913.89	6,917.00	6,912.09	4.91	6,865.92	51.08	N/A	N/A	20.04	6,893.85	N/A	37.5 - 47.5	Chinle/Alluvium Interface	68.91
		11/27/2012	4.00	6,913.89	6,917.00	6,912.09	4.91	6,865.92	51.08	N/A	N/A	19.85	6,894.04	N/A	37.5 - 47.5	Chinle/Alluvium Interface	69.33
8/28/1996	OW-30	3/21/2012	4.00	6,921.81	6,924.69	6,919.84	4.85	6,874.79	49.90	N/A	N/A	24.23	6,897.58	N/A	37.9 - 47.9	Chinle/Alluvium Interface	50
		6/14/2012	4.00	6,921.81	6,924.69	6,919.84	4.85	6,874.79	49.90	N/A	N/A	24.28	6,897.53	N/A	37.9 - 47.9	Chinle/Alluvium Interface	50
		8/23/2012	4.00	6,921.81	6,924.69	6,919.84	4.85	6,874.79	49.90	N/A	N/A	24.48	6,897.33	N/A	37.9 - 47.9	Chinle/Alluvium Interface	56.43
		11/27/2012	4.00	6,921.81	6,924.69	6,919.84	4.85	6,874.79	49.90	N/A	N/A	24.39	6,897.42	N/A	37.9 - 47.9	Chinle/Alluvium Interface	56.63
10/5/2009	OW-50	3/22/2012	2.00	6,912.63	6,914.21	6,911.46	2.75	6,850.21	64.00	N/A	N/A	16.88	6,895.75	N/A	48 - 63	Chinle/Alluvium Interface	23
		6/13/2012	2.00	6,912.63	6,914.21	6,911.46	2.75	6,850.21	64.00	N/A	N/A	17.02	6,895.61	N/A	48 - 63	Chinle/Alluvium Interface	22.5
		8/23/2012	2.00	6,912.63	6,914.21	6,911.46	2.75	6,850.21	64.00	N/A	N/A	17.44	6,895.19	N/A	48 - 63	Chinle/Alluvium Interface	22.77
		11/27/2012	2.00	6,912.63	6,914.21	6,911.46	2.75	6,850.21	64.00	N/A	N/A	17.28	6,895.35	N/A	48 - 63	Chinle/Alluvium Interface	22.85
		12/5/2012	2.00	6,912.63	6,914.21	6,911.46	2.75	6,850.21	64.00	N/A	N/A	17.28	6,895.35	N/A	48 - 63	Chinle/Alluvium Interface	22.85
10/5/2009	OW-52	3/22/2012	2.00	6,906.53	6,907.68	6,905.31	2.37	6,829.94	77.74	N/A	N/A	15.65	6,890.88	N/A	64 - 79	Chinle/Alluvium Interface	30
		6/13/2012	2.00	6,906.53	6,907.68	6,905.31	2.37	6,829.94	77.74	N/A	N/A	15.79	6,890.74	N/A	64 - 79	Chinle/Alluvium Interface	30
		8/23/2012	2.00	6,906.53	6,907.68	6,905.31	2.37	6,829.94	77.74	N/A	N/A	16.16	6,890.37	N/A	64 - 79	Chinle/Alluvium Interface	30.11
		11/27/2012	2.00	6,906.53	6,907.68	6,905.31	2.37	6,829.94	77.74	N/A	N/A	16.13	6,890.40	N/A	64 - 79	Chinle/Alluvium Interface	30.13

2012 WELL DATA DTB/DTW MEASUREMENTS
ANNUAL/QUARTERLY

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter[1] (Inch)	A Ground Level Elevations (ft)	Well Casing Rim Elevations[1] (ft)	Ground Elevation Inside Steel Sleeve[1] (ft)	Stick-up length (ft)	Well Casing Bottom Elevations [1] (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness [2] (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
	OW-52	12/5/2012	2.00	6,906.53	6,907.68	6,905.31	2.37	6,829.94	77.74	N/A	N/A	16.26	6,890.27	N/A	64 - 79	Chinle/Alluvium Interface	30.06
7/8/2004	GWM-1	3/20/2012	2.00	6,910.22	6,912.61	6,908.36	4.25	6,886.41	26.20	N/A	N/A	14.49	6,895.73	N/A	17.5 - 23.5	Chinle/Alluvium Interface	5.6
		6/12/2012	2.00	6,910.22	6,912.61	6,908.36	4.25	6,886.41	26.20	N/A	N/A	15.56	6,894.66	N/A	17.5 - 23.5	Chinle/Alluvium Interface	5.1
		8/21/2012	2.00	6,910.22	6,912.61	6,908.36	4.25	6,886.41	26.20	N/A	N/A	16.29	6,893.93	N/A	17.5 - 23.5	Chinle/Alluvium Interface	4.85
		11/28/2012	2.00	6,910.22	6,912.61	6,908.36	4.25	6,886.41	26.20	N/A	N/A	14.50	6,895.72	N/A	17.5 - 23.5	Chinle/Alluvium Interface	5.72
9/25/2005	GWM-2	3/20/2012	2.00	6,910.32	6,913.09	6,908.05	5.04	6,894.28	18.81	N/A	N/A	13.58	6,896.74	N/A	3.2 - 16.2	Chinle/Alluvium Interface	2.5
		6/12/2012	2.00	6,910.32	6,913.09	6,908.05	5.04	6,894.28	18.81	N/A	N/A	14.96	6,895.36	N/A	3.2 - 16.2	Chinle/Alluvium Interface	1.8
		8/21/2012	2.00	6,910.32	6,913.09	6,908.05	5.04	6,894.28	18.81	N/A	N/A	15.79	6,894.53	N/A	3.2 - 16.2	Chinle/Alluvium Interface	1.48
		11/28/2012	2.00	6,910.32	6,913.09	6,908.05	5.04	6,894.28	18.81	N/A	N/A	13.83	6,896.49	N/A	3.2 - 16.2	Chinle/Alluvium Interface	2.44
9/25/2005	GWM-3	3/20/2012	2.00	6,907.35	6,910.25	6,905.48	4.77	6,892.45	17.80	N/A	N/A	12.95	6,894.40	N/A	3 - 15	Chinle/Alluvium Interface	2.4
		6/12/2012	2.00	6,907.35	6,910.25	6,905.48	4.77	6,892.45	17.80	N/A	N/A	14.70	6,892.65	N/A	3 - 15	Chinle/Alluvium Interface	1.5
		8/21/2012	2.00	6,907.35	6,910.25	6,905.48	4.77	6,892.45	17.80	N/A	N/A	15.45	6,891.90	N/A	3 - 15	Chinle/Alluvium Interface	1.15
		11/28/2012	2.00	6,907.35	6,910.25	6,905.48	4.77	6,892.45	17.80	N/A	N/A	13.60	6,893.75	N/A	3 - 15	Chinle/Alluvium Interface	2.35
3/14/2008	NAPIS-1	3/20/2012	2.00	6,913.62	6,913.86	6,913.56	0.30	6,900.33	13.53	N/A	N/A	7.24	6,906.38	N/A	3.7 - 13.7	Chinle/Alluvium Interface	3.02
		6/12/2012	2.00	6,913.62	6,913.86	6,913.56	0.30	6,900.33	13.53	N/A	N/A	7.39	6,906.23	N/A	3.7 - 13.7	Chinle/Alluvium Interface	2.95
		8/21/2012	2.00	6,913.62	6,913.86	6,913.56	0.30	6,900.33	13.53	N/A	N/A	7.07	6,906.55	N/A	3.7 - 13.7	Chinle/Alluvium Interface	3.16
		11/28/2012	2.00	6,913.62	6,913.86	6,913.56	0.30	6,900.33	13.53	N/A	N/A	8.04	6,905.58	N/A	3.7 - 13.7	Chinle/Alluvium Interface	2.68
		12/5/2012	2.00	6,913.62	6,913.86	6,913.56	0.30	6,900.33	13.53	N/A	N/A	8.41	6,905.21	N/A	3.7 - 13.7	Chinle/Alluvium Interface	2.5
3/14/2008	NAPIS-2	3/20/2012	2.00	6,913.40	6,912.65	6,912.54	0.11	6,899.04	13.61	N/A	N/A	7.97	6,905.43	N/A	4.2 - 14.2	Chinle/Alluvium Interface	2.7
		6/12/2012	2.00	6,913.40	6,912.65	6,912.54	0.11	6,899.04	13.61	N/A	N/A	8.09	6,905.31	N/A	4.2 - 14.2	Chinle/Alluvium Interface	2.7
		8/21/2012	2.00	6,913.40	6,912.65	6,912.54	0.11	6,899.04	13.61	N/A	N/A	7.95	6,905.45	N/A	4.2 - 14.2	Chinle/Alluvium Interface	2.77
		11/28/2012	2.00	6,913.40	6,912.65	6,912.54	0.11	6,899.04	13.61	N/A	N/A	9.40	6,904.00	N/A	4.2 - 14.2	Chinle/Alluvium Interface	2.06
		12/5/2012	2.00	6,913.40	6,912.65	6,912.54	0.11	6,899.04	13.61	N/A	N/A	9.47	6,903.93	N/A	4.2 - 14.2	Chinle/Alluvium Interface	2.02
3/14/2008	NAPIS-3	3/20/2012	2.00	6,913.38	6,912.76	6,912.53	0.23	6,882.34	30.42	N/A	N/A	7.51	6,905.87	N/A	25.4 - 30-4	Chinle/Alluvium Interface	11.2
		6/12/2012	2.00	6,913.38	6,912.76	6,912.53	0.23	6,882.34	30.42	N/A	N/A	7.70	6,905.68	N/A	25.4 - 30-4	Chinle/Alluvium Interface	10.9

2012 WELL DATA DTB/DTW MEASUREMENTS
ANNUAL/QUARTERLY

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter[1] (Inch)	A Ground Level Elevations (ft)	Well Casing Rim Elevations[1] (ft)	Ground Elevation Inside Steel Sleeve[1] (ft)	Stick-up length (ft)	Well Casing Bottom Elevations [1] (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness [2] (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
	NAPIS-3	10/2/2012	2.00	6,913.38	6,912.76	6,912.53	0.23	6,882.34	30.42	N/A	N/A	8.56	6,904.82	N/A	25.4 - 30-4	Chinle/Alluvium Interface	10.49
		11/28/2012	2.00	6,913.38	6,912.76	6,912.53	0.23	6,882.34	30.42	N/A	N/A	8.30	6,905.08	N/A	25.4 - 30-4	Chinle/Alluvium Interface	10.8/2
		12/5/2012	2.00	6,913.38	6,912.76	6,912.53	0.23	6,882.34	30.42	N/A	N/A	8.42	6,904.96	N/A	25.4 - 30-4	Chinle/Alluvium Interface	10.76
6/11/2007	KA-3	3/20/2012	2.00	6,913.29	6,912.52	6,912.20	0.32	6,889.32	23.20	N/A	N/A	7.93	6,905.36	N/A	15 - 25	Chinle/Alluvium Interface	7.5
		6/12/2012	2.00	6,913.29	6,912.52	6,912.20	0.32	6,889.32	23.20	N/A	N/A	7.97	6,905.32	N/A	15 - 25	Chinle/Alluvium Interface	7.3
		8/21/2012	2.00	6,913.29	6,912.52	6,912.20	0.32	6,889.32	23.20	N/A	N/A	7.98	6,905.31	N/A	15 - 25	Chinle/Alluvium Interface	7.44
		11/28/2012	2.00	6,913.29	6,912.52	6,912.20	0.32	6,889.32	23.20	N/A	N/A	9.25	6,904.04	N/A	15 - 25	Chinle/Alluvium Interface	6.82
		12/5/2012	2.00	6,913.29	6,912.52	6,912.20	0.32	6,889.32	23.20	N/A	N/A	9.38	6,903.91	N/A	15 - 25	Chinle/Alluvium Interface	6.76
3/28/1995	RW-1	3/15/2012	4.00	6,942.86	6,946.06	6,941.25	4.81	6,903.02	43.04	29.31	0.03	29.34	6,913.52	6913.544	25 - 40	Chinle/Alluvium Interface	NA
		6/4/2012	4.00	6,942.86	6,946.06	6,941.25	4.81	6,903.02	43.04	29.39	0.00	29.41	6,913.45	6913.45	25 - 40	Chinle/Alluvium Interface	NA
		8/13/2012	4.00	6,942.86	6,946.06	6,941.25	4.81	6,903.02	43.04	29.54	0.59	30.13	6,912.73	6913.202	25 - 40	Chinle/Alluvium Interface	NA
		8/23/2012[3]	4.00	6,942.86	6,946.06	6,941.25	4.81	6,903.02	43.04	0.00	0.00	32.51	6,910.35	6910.35	25 - 40	Chinle/Alluvium Interface	23.38
		10/8/2012	4.00	6,942.86	6,946.06	6,941.25	4.81	6,903.02	43.04	29.28	0.90	30.18	6,912.68	6913.4	25 - 40	Chinle/Alluvium Interface	NA
3/29/1995	RW-2	3/15/2012	4.00	6,926.40	6,928.53	6,925.02	3.51	6,888.73	39.80	0.00	0.00	24.54	6,901.86	6901.86	26.1 - 36.1	Chinle/Alluvium Interface	NA
		6/4/2012	4.00	6,926.40	6,928.53	6,925.02	3.51	6,888.73	39.80	0.00	0.00	24.66	6,901.74	6901.74	26.1 - 36.1	Chinle/Alluvium Interface	NA
		8/13/2012	4.00	6,926.40	6,928.53	6,925.02	3.51	6,888.73	39.80	0.00	0.00	24.71	6,901.69	6901.69	26.1 - 36.1	Chinle/Alluvium Interface	NA
		8/24/2012[3]	4.00	6,926.40	6,928.53	6,925.02	3.51	6,888.73	39.80	0.00	0.00	27.89	6,898.51	6898.51	26.1 - 36.1	Chinle/Alluvium Interface	26.44
		10/8/2012	4.00	6,926.40	6,928.53	6,925.02	3.51	6,888.73	39.80	0.00	0.00	24.87	6,901.53	6901.53	26.1 - 36.1	Chinle/Alluvium Interface	NA
8/27/1997	RW-5	3/15/2012	4.00	6,941.53	6,943.57	6,940.82	2.75	6,903.98	39.59	0.00	0.00	29.32	6,912.21	6912.21	29.5 - 39.5	Chinle/Alluvium Interface	NA
		6/4/2012	4.00	6,941.53	6,943.57	6,940.82	2.75	6,903.98	39.59	0.00	0.00	29.37	6,912.16	6912.16	29.5 - 39.5	Chinle/Alluvium Interface	NA
		8/13/2012	4.00	6,941.53	6,943.57	6,940.82	2.75	6,903.98	39.59	0.00	0.00	29.49	6,912.04	6912.04	29.5 - 39.5	Chinle/Alluvium Interface	NA
		8/23/2012[3]	4.00	6,941.53	6,943.57	6,940.82	2.75	6,903.98	39.59	0.00	0.00	29.46	6,912.07	6912.07	29.5 - 39.5	Chinle/Alluvium Interface	22.49
		10/8/2012	4.00	6,941.53	6,943.57	6,940.82	2.75	6,903.98	39.59	0.00	0.00	29.58	6,911.95	6911.95	29.5 - 39.5	Chinle/Alluvium Interface	NA

2012 WELL DATA DTB/DTW MEASUREMENTS
ANNUAL/QUARTERLY

Date of Installation	Well ID Number	Inspection or Sample Date	Casing Diameter[1] (Inch)	A Ground Level Elevations (ft)	Well Casing Rim Elevations[1] (ft)	Ground Elevation Inside Steel Sleeve[1] (ft)	Stick-up length (ft)	Well Casing Bottom Elevations [1] (ft)	Total Well Depth (ft)	Depth to SPH (ft)	B SPH Thickness [2] (ft)	C Depth to Water (ft)	D = A-C Ground water Elevation (ft)	= 0.8 B + D Corrected Water Table Elevation	Screened Interval Depth Top to Bottom (ft)	Stratigraphic unit in which screen exists	Purge Volume = 3 Well Vol (gal)
8/27/1997	RW-6	3/15/2012	4.00	6,941.96	6,944.01	6,941.49	2.52	6,903.11	40.90	0.00	0.00	29.46	6,912.50	6912.5	28.5 - 38.5	Chinle/Alluvium Interface	NA
		6/4/2012	4.00	6,941.96	6,944.01	6,941.49	2.52	6,903.11	40.90	0.00	0.00	29.54	6,912.42	6912.42	28.5 - 38.5	Chinle/Alluvium Interface	NA
		8/13/2012	4.00	6,941.96	6,944.01	6,941.49	2.52	6,903.11	40.90	0.00	0.00	29.57	6,912.39	6912.39	28.5 - 38.5	Chinle/Alluvium Interface	NA
		8/23/2012[3]	4.00	6,941.96	6,944.01	6,941.49	2.52	6,903.11	40.90	0.00	0.00	29.56	6,912.40	6912.4	28.5 - 38.5	Chinle/Alluvium Interface	25.17
		10/8/2012	4.00	6,941.96	6,944.01	6,941.49	2.52	6,903.11	40.90	0.00	0.00	29.62	6,912.34	6912.34	28.5 - 38.5	Chinle/Alluvium Interface	NA

DEFINITIONS
DTB - Depth to Bottom
DTW - Depth to Water
SPH = Separate Phase Hydrocarbons
NOTES:
1. Elevation data from NMED's "Approval with Modifications, Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells", dated 9/26/12.
2. Corrected water table elevations are only provided if SPH was detected.
3. Annual sampling of wells. Depth to product not measured.

SECTION 10

Monitoring Schedule

Table 1 - MONITORING SCHEDULE 2012

Sampling Location ID	Frequency	Sample Date(s)	Inspection Date(s)	General Monitoring and Sampling Comments.	Analytical Data
Pilot Effluent (Pilot Eff)	Quarterly (Q)	3/20/12, 6/12/12, 8/21/12, 12/5/12	11/28/12 - No flow. Diverted to Pond 9. No Samples taken.	VOC, DRO extended/GRO, BOD, COD, WQCC Metals	Appendix K, Section 8.1
NAPIS Effluent (NAPIS Eff)	Q	3/21/12, 6/12/12,	8/21/12, 11/28/12 - No samples taken, flow routed to new WWTP	Gen Chem, VOC, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.1
AL-2 to EP-1	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		Major Cations/Anions, VOC, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.1
Influent to AL-1 (Infl to AL-1)	Q	3/21/12, 6/14/12,	8/21/12, 11/28/12 - No samples taken, flow routed to new WWTP	VOC, BOD, COD, Chlorides, DRO extended/GRO, pH, Phenol	Appendix K, Section 8.2
Influent to AL-2 (Infl to AL-2)	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		VOC, BOD, COD, Chlorides, DRO extended/GRO, pH, Phenol	Appendix K , Section 8.2
Influent to EP-1 (Infl to EP-1)	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		Major Cations/Anions, pH, BOD, COD, Chlorides, VOC, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.2
NAPI Secondary Containment (LDU) East LDU, West LDU, Oil Sump LDU	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12		BTEX, DRO extended/GRO, WQCC Metals or check for fluids	Appendix K, Section 8.3
RW-1	Q	8/23/12	3/15/12, 6/4/12, 8/13/12, 10/8/12	Measure depth to water (DTW), depth to product (DTP)	Appendix K, Section 8.17
RW-2	Q	8/24/12	3/15/12, 6/4/12, 8/13/12, 10/8/12	Measure DTW, DTP	Appendix K, Section 8.17
RW-5	Q	8/23/12	3/15/12, 6/4/12, 8/13/12, 10/8/12	Measure DTW, DTP	Appendix K, Section 8.17
RW-6	Q	8/23/12	3/15/12, 6/4/12, 8/13/12, 10/8/12	Measure DTW, DTP	Appendix K, Section 8.17
OW-1	Q	3/22/12, 6/13/12, 8/22/12, 11/27/12		Visual Check for Artesian flow conditions; Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.4
OW-10	Q	3/22/12, 6/13/12, 8/22/12, 11/27/12		Visual Check for Artesian flow conditions; Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.4
OW-13	Q	3/21/12, 6/14/12, 8/23/12, 11/27/12		VOC	Appendix K, Section 8.5
OW-14	Q	3/21/12, 6/14/12, 8/23/12, 11/27/12		VOC	Appendix K, Section 8.5
OW-29	Q	3/21/12, 6/13/12, 8/23/12, 11/27/12		VOC	Appendix K, Section 8.5
OW-30	Q	3/21/12, 6/14/12, 8/23/12, 11/27/12		VOC	Appendix K, Section 8.5
OW-50	Q	3/22/12, 6/13/12, 8/23/12, 11/27/12, 12/5/12[1]		VOC, SVOC, WQCC Metals, DRO extended/GRO, General Chemistry	Appendix K, Section 8.6
OW-52	Q	3/22/12, 6/13/12, 8/23/12, 11/27/12, 12/5/12[1]		VOC, SVOC, WQCC Metals, DRO extended/GRO, General Chemistry	Appendix K, Section 8.6
GWM-1	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.7
GWM-2	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12		Check for water. If water is detected report to OCD & NMED within 24 hours. Sample for BTEX, DRO extended/GRO, Major Cations/Anions.	Appendix K, Section 8.7
GWM-3	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12		Check for water. If water is detected report to OCD & NMED within 24 hours. Sample for BTEX, DRO extended/GRO, Major Cations/Anions.	Appendix K, Section 8.7
NAPIS-1	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.8
NAPIS-2	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.8
NAPIS-3	Q	3/20/12, 6/12/12, 10/2/12[2], 11/28/12, 12/5/12[1]	8/21/12 - Purged dry - slow recharge not enough water to collect samples.	Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.8
KA-3	Q	3/20/12, 6/12/12, 8/21/12, 11/28/12, 12/5/12[1]		Major Cations/Anions, BTEX, SVOC, DRO extended/GRO, WQCC Metals	Appendix K, Section 8.8

Table 1 - MONITORING SCHEDULE 2012

Sampling Location ID	Frequency	Sample Date(s)	Inspection Date(s)	General Monitoring and Sampling Comments.	Analytical Data
BW to EP-2	Semi-Annual (SA)	5/29/2012, 11/6/12		Major Cations/Anions	Appendix K, Section 8.9
Evaporation Pond 1 (EP-1)	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		General Chemistry, VOC, SVOC, BOD, COD, E-Coli Bacteria, WQCC Metals	Appendix K, Section 8.10
EP-2	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-3	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-4	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-5	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-6	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-7	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-8	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-9a	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-11	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-12A	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
EP-12B	SA	5/29/12, 5/30/12, 11/6/12, 11/7/12		Same as EP-1	Appendix K, Section 8.10
BW-1A	Annual (A)		8/23/12 - DRY	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-1B	A		8/23/12 - DRY	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-1C	A	8/24/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-2A	A	8/24/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-2B	A	8/24/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-2C	A	8/24/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-3A	A		8/23/12 - DRY	Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-3B	A	8/23/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
BW-3C	A	8/23/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.11
EP-2 Inlet	A	8/21/12		VOC, DRO extended/GRO, BOD, COD, TDS	Appendix K, Section 8.12
MW-1	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	8/24/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOC, SVOC, TPH	Appendix K, Section 8.13
MW-2	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	8/24/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOC, SVOC, TPH	Appendix K, Section 8.13
MW-4	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	8/21/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOC, SVOC, TPH	Appendix K, Section 8.13
MW-5	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	8/23/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOC, SVOC, TPH	Appendix K, Section 8.13

SECTION 10

Table 1 - MONITORING SCHEDULE 2012

Sampling Location ID	Frequency	Sample Date(s)	Inspection Date(s)	General Monitoring and Sampling Comments.	Analytical Data
OW-11	A	8/22/12		Major Cations/Anions, VOC, SVOC, WQCC Metals	Appendix K, Section 8.14
OW-12	A	8/22/12		VOC	Appendix K, Section 8.14
SMW-2	A	8/23/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals.	Appendix K, Section 8.15
SMW-4	Annual and every 10 years beginning 2009 per RCRA Post Closure Permit	8/24/12		Major Cations/Anions, VOC, DRO extended/GRO, WQCC Metals. For RCRA 10 year requirements: Gen Chem, Modified Skinner List Metals (total and dissolved) including mercury and cyanide, Modified Skinner List VOC, SVOC, TPH	Appendix K, Section 8.15
PW-2	Every 3 years. Start 2008	10/26/11, 12/15/2011		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix K, Section 8.16
PW-3[3]	Annual starting with 2009	8/24/12		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix K, Section 8.16
PW-4	Every 3 years. Start 2007	Last sampled 7/28/10		VOC, SVOC, WQCC Metals, Cyanide, Nitrates	Appendix K, Section 8.16

DEFINITIONS:

WWTP - Waste water treatment plant: OCD - Oil Conservation Division: NMED - New Mexico Environment Department.

BTEX - Benzene, toluene, ethylbenzene, xylene; MTBE - Methyl tert butyl ether

VOC - Method 8260+MTBE; SVOC - Method 8270; BTEX+MTBE - Method 8021B+MTBE; WQCC Metals - Total & Dissolved; General Chemistry - Cations, anions, pH, specific conductivity; DRO/GRO - Method 8015B.

NOTES:

1) Sampled for SVOCs only - missed during the November sampling event.

2) On 8/21/12 well purged dry - slow recharge rate. Samples taken on 10/2/12.

3) Sampling changed to annual per NMED directive, Comment 8, Notice of Disapproval (NOD) dated 3/26/09 due to detection of 2-Methylnaphthalene in annual sampling for 2007 conducted in January 2008.

SECTION 11

Figures

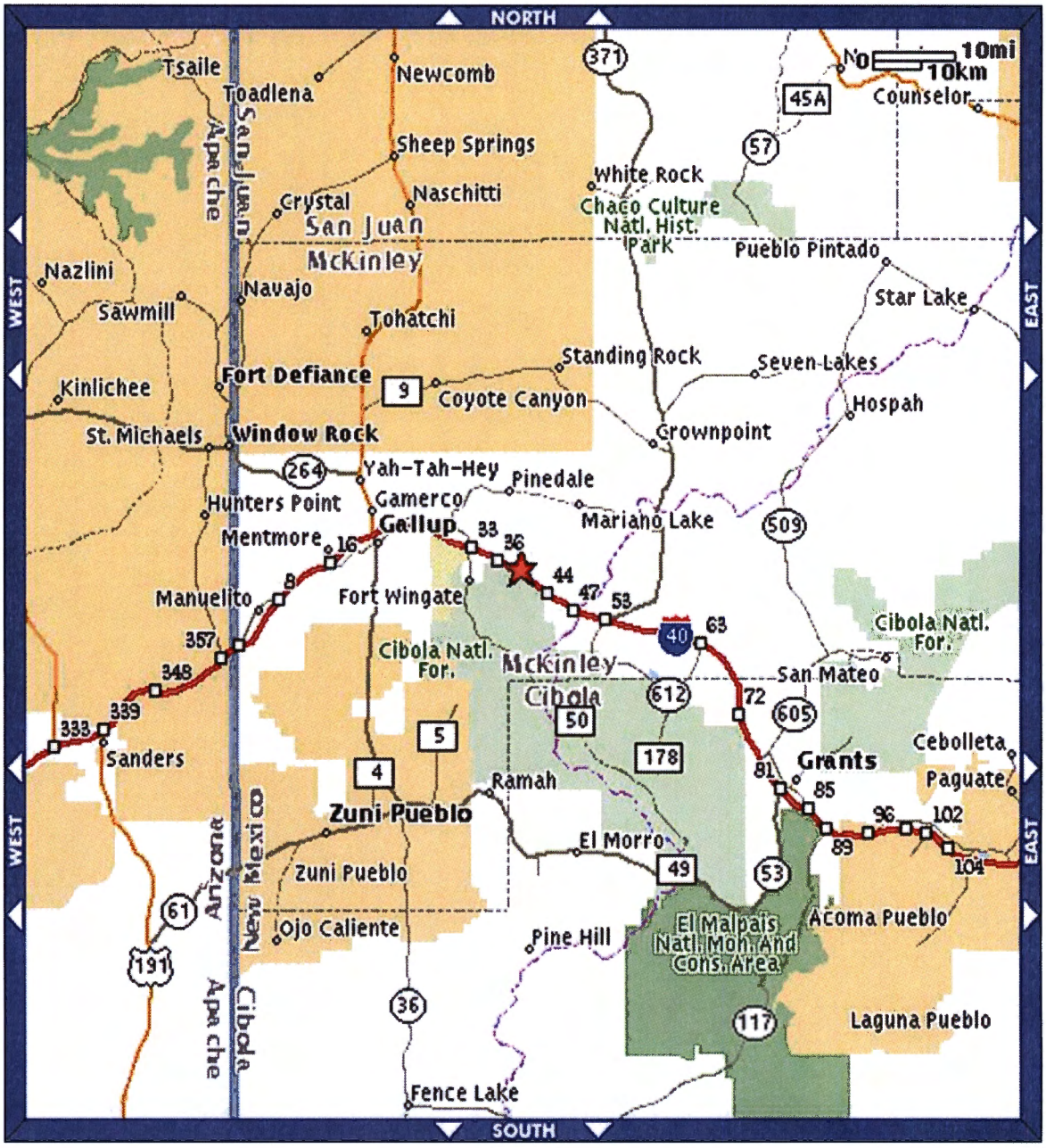


Figure 1: Regional map showing the location of the Gallup Refinery (red star along Interstate-40, 20 miles east of the City of Gallup).

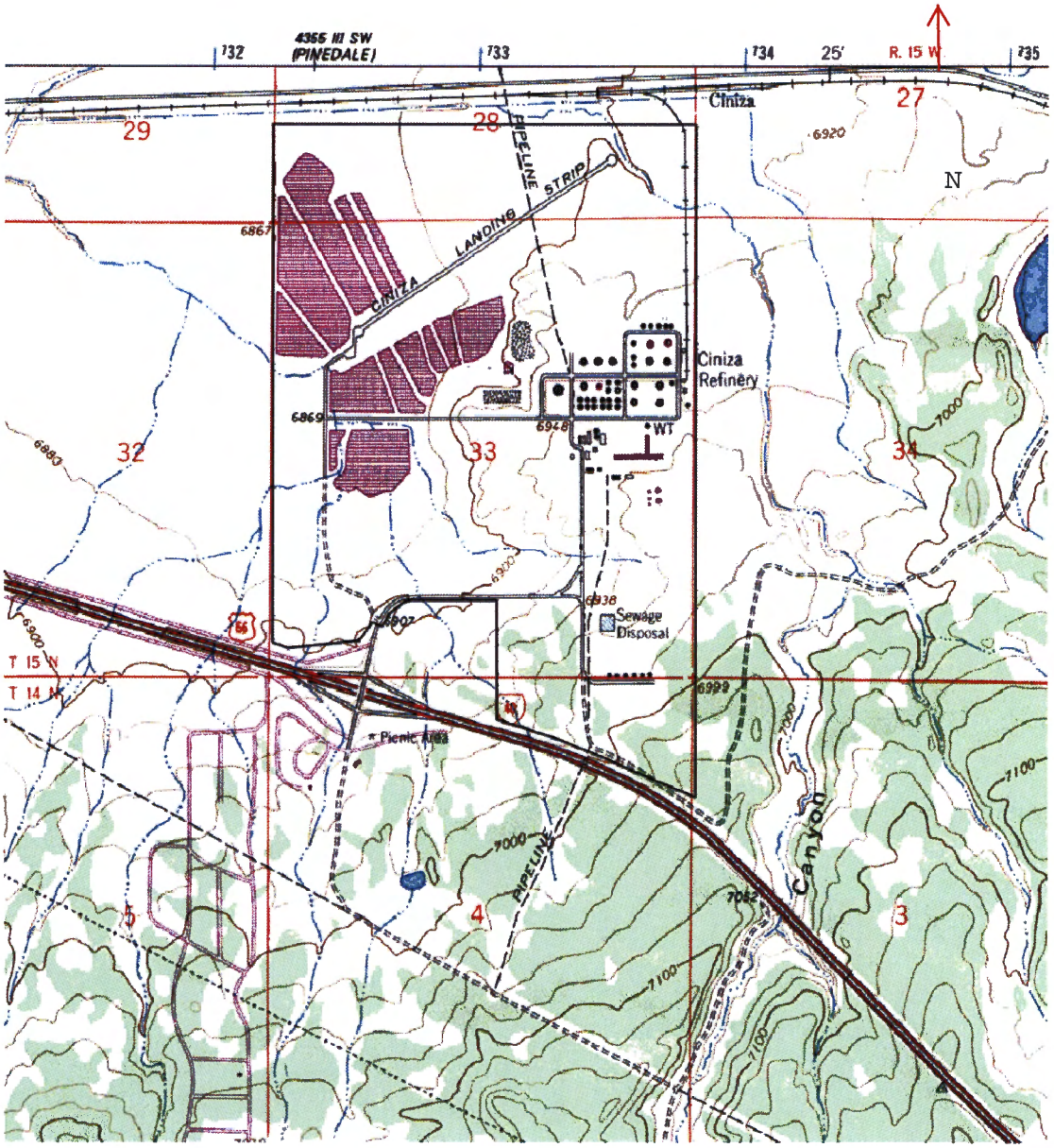


Figure 2: Topographic Map of the Gallup Refinery Site - USGS Topographical Map - Gallup Quadrangle (Revised 1980)

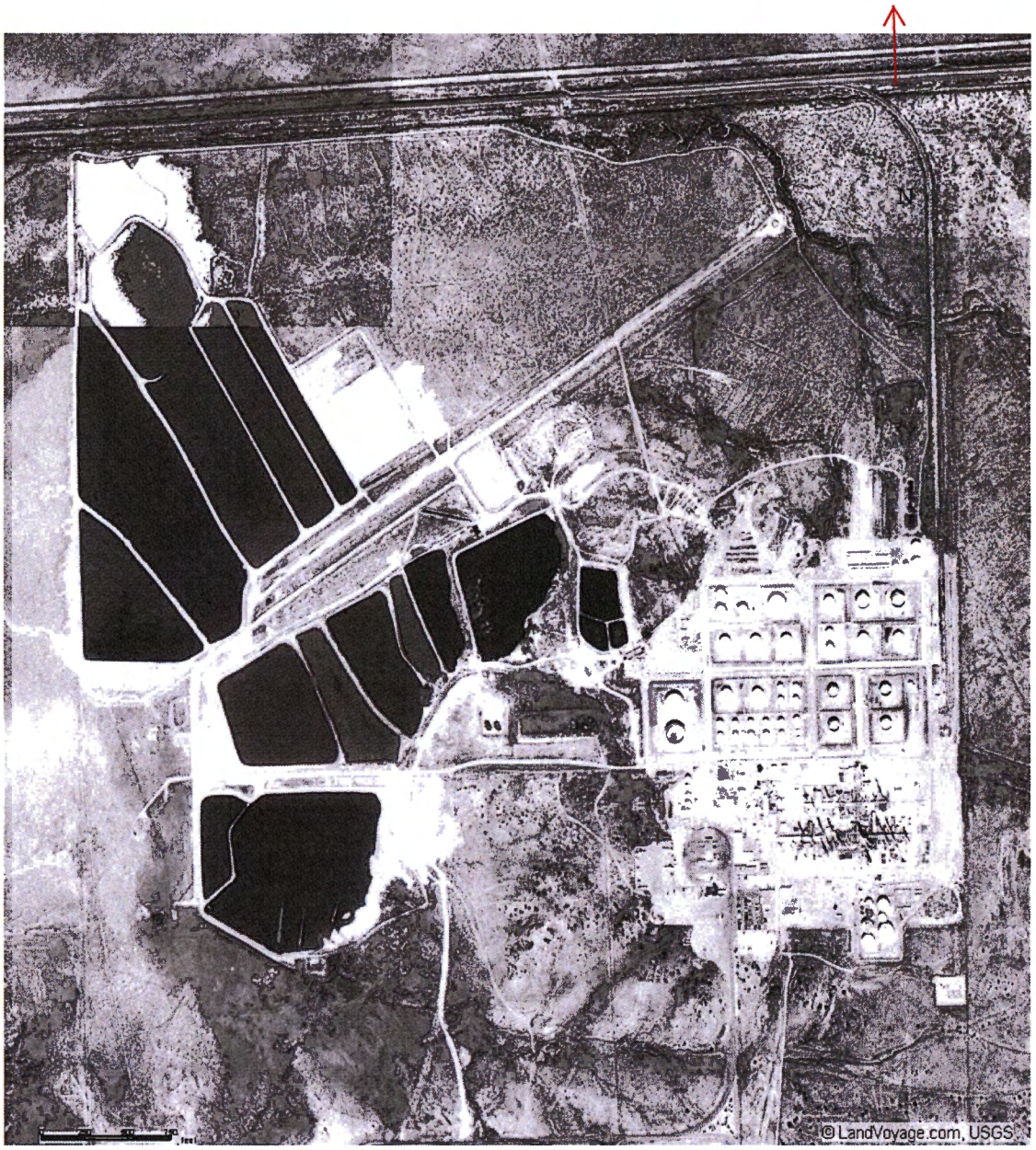
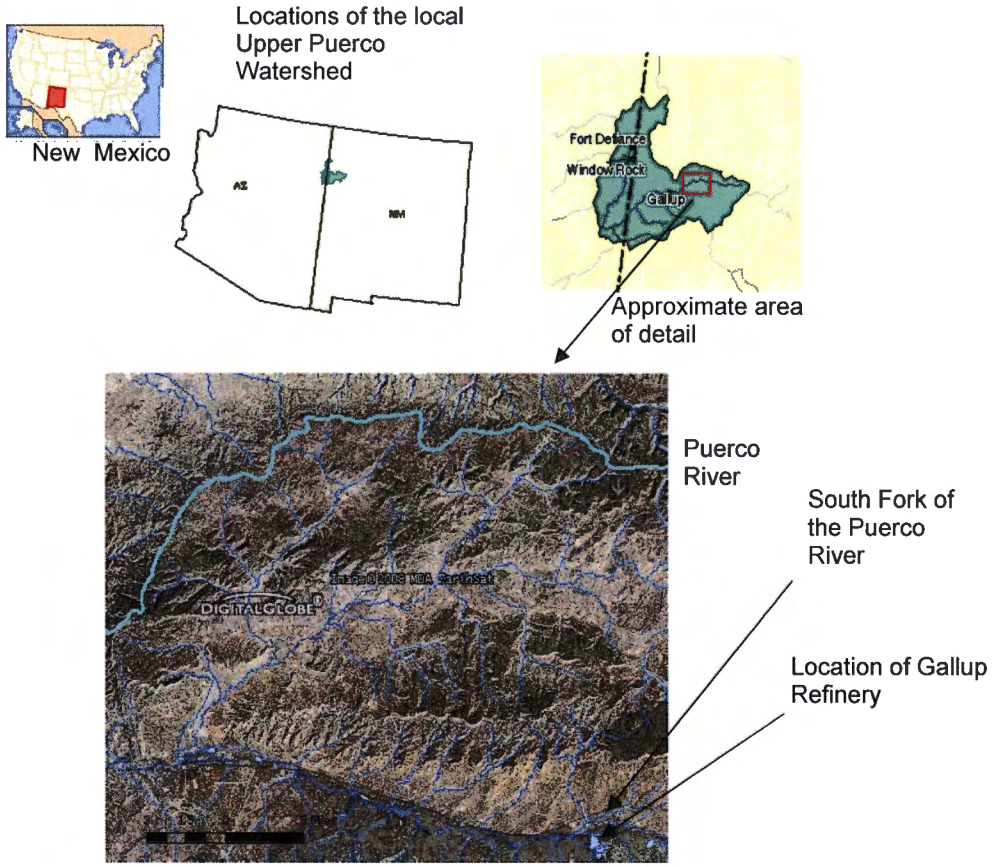


Figure 3: Aerial photograph of the Gallup Refinery

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



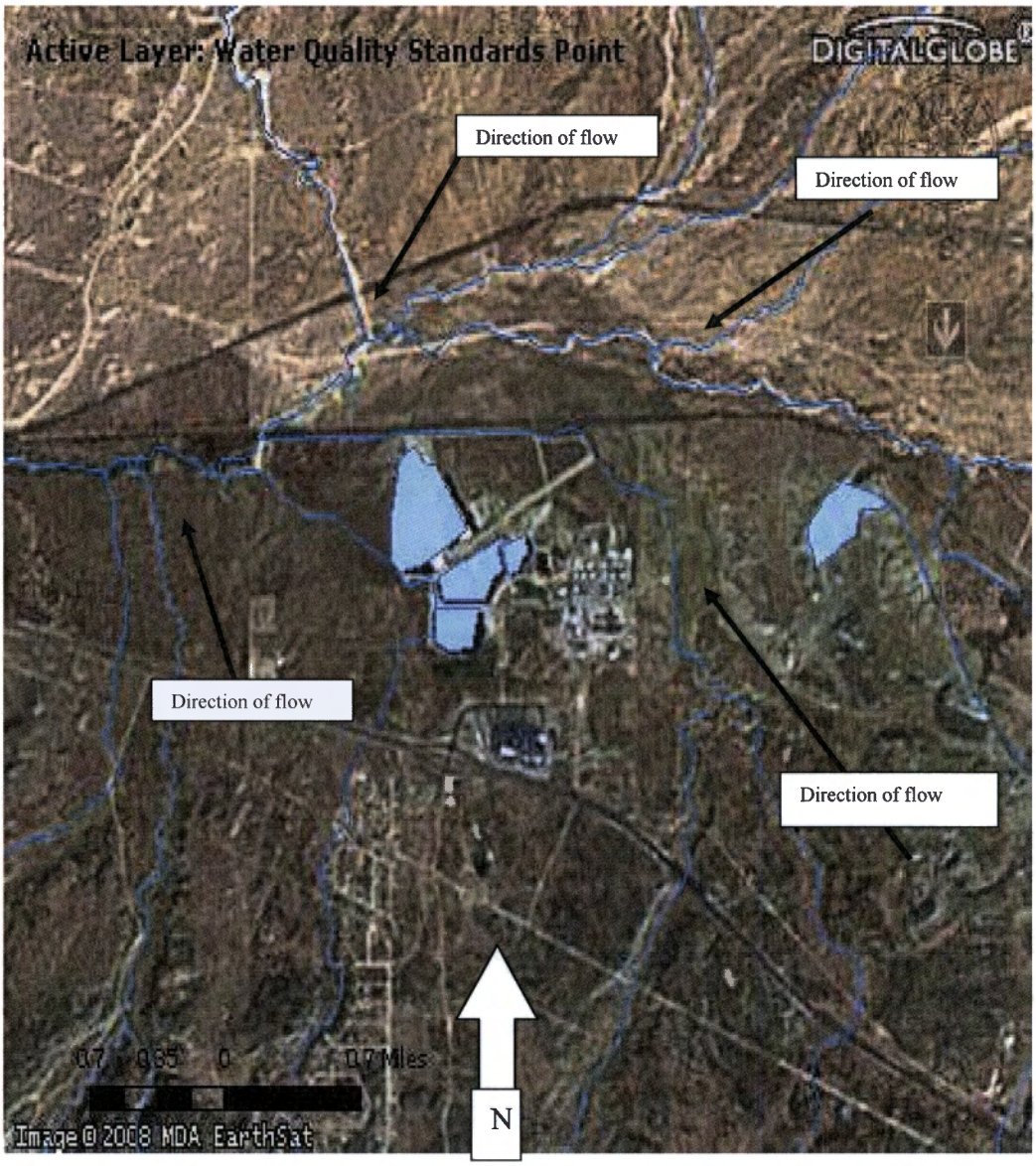


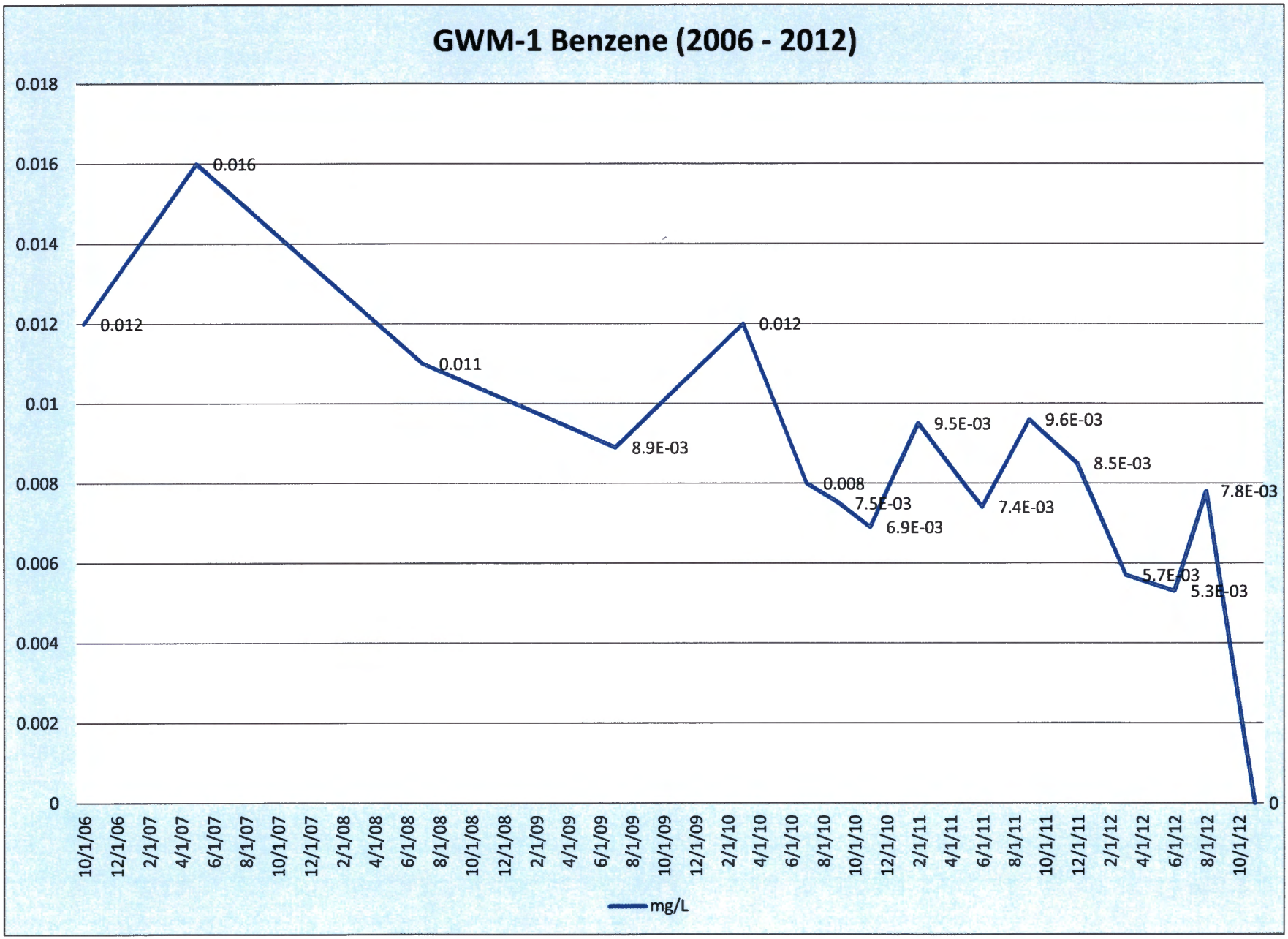
Figure 5: Localized scale: Flow lines and major surface water bodies (from: EPA Enviromapper - http://map24.epa.gov/EMR/?ZoomToWatershed=15020006) North is towards the top of the page. The pond to the east is Jon Myers' Livestock Pond.

TO VIEW THE MAP AND/OR MAPS WITH THIS DOCUMENT, PLEASE CALL THE HAZARDOUS WASTE BUREAU AT 505-476-6000 TO MAKE AN APPOINTMENT

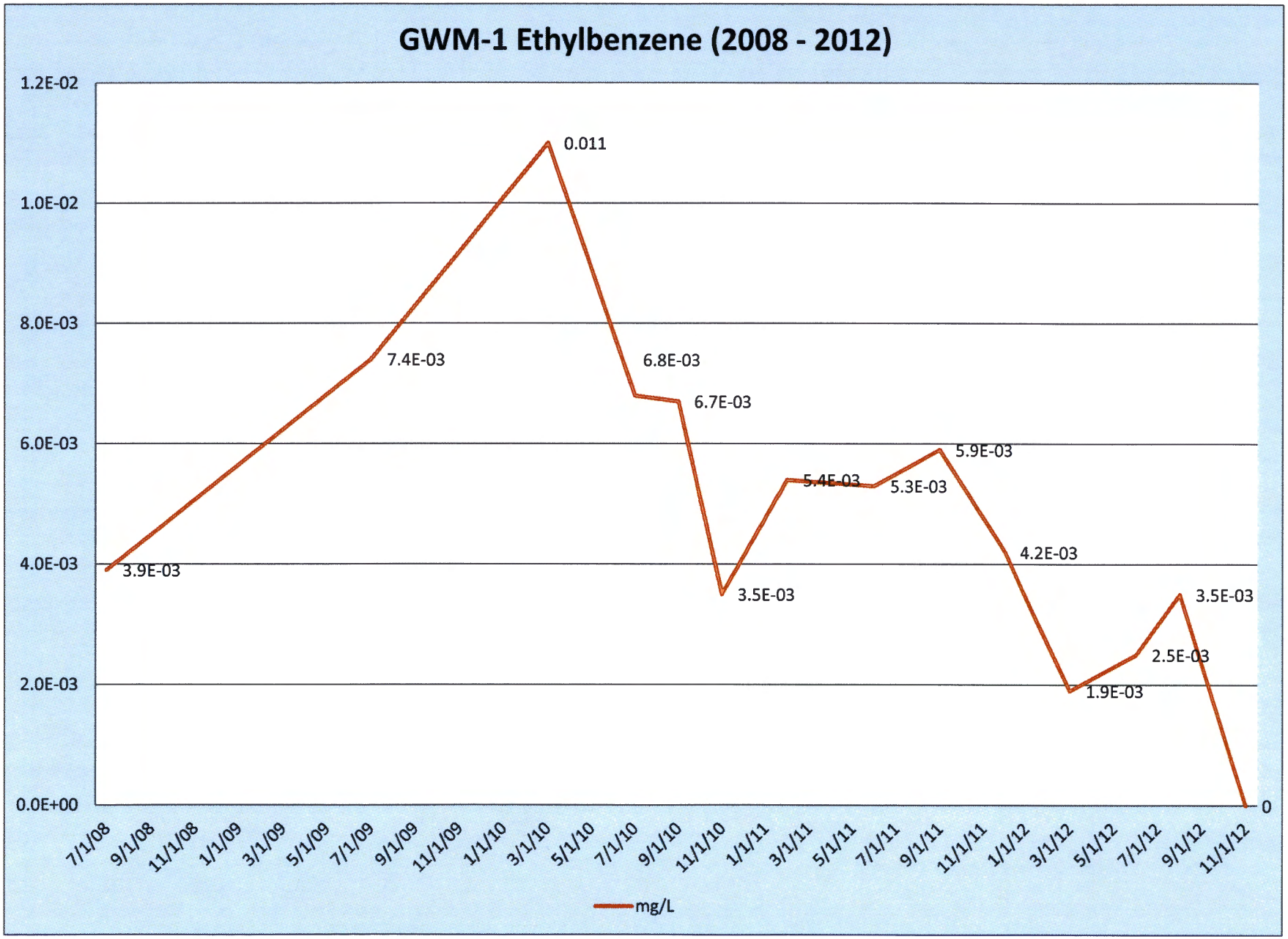
SECTION 12

Graphs

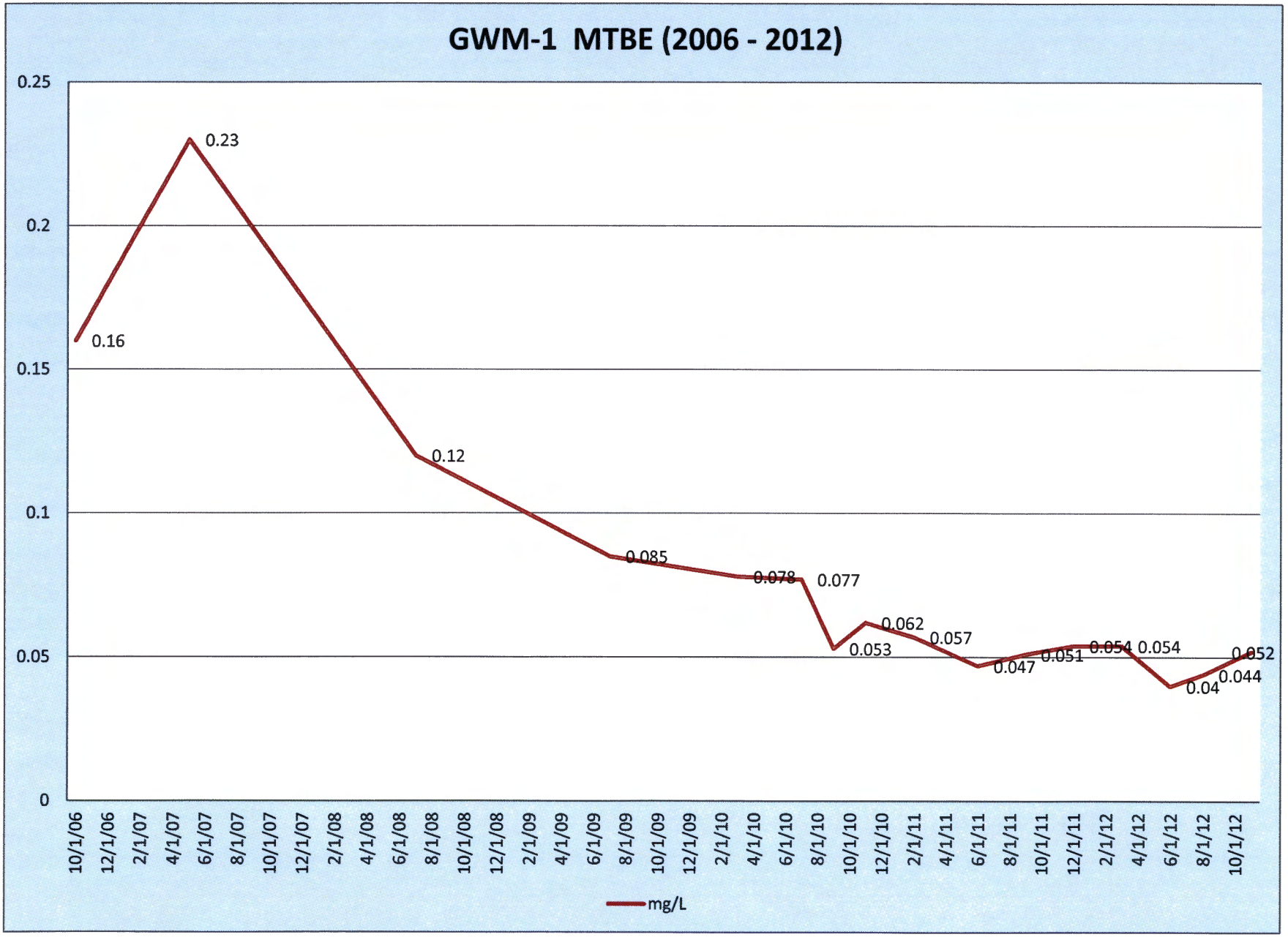
GRAPH 1


GWM-1 Benzene (2006 - 2012)
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
0.012
0.016
0.011
8.9E-03
0.012
0.008
7.5E-03
6.9E-03
9.5E-03
7.4E-03
9.6E-03
8.5E-03
5.7E-03
5.3E-03
7.8E-03
0
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

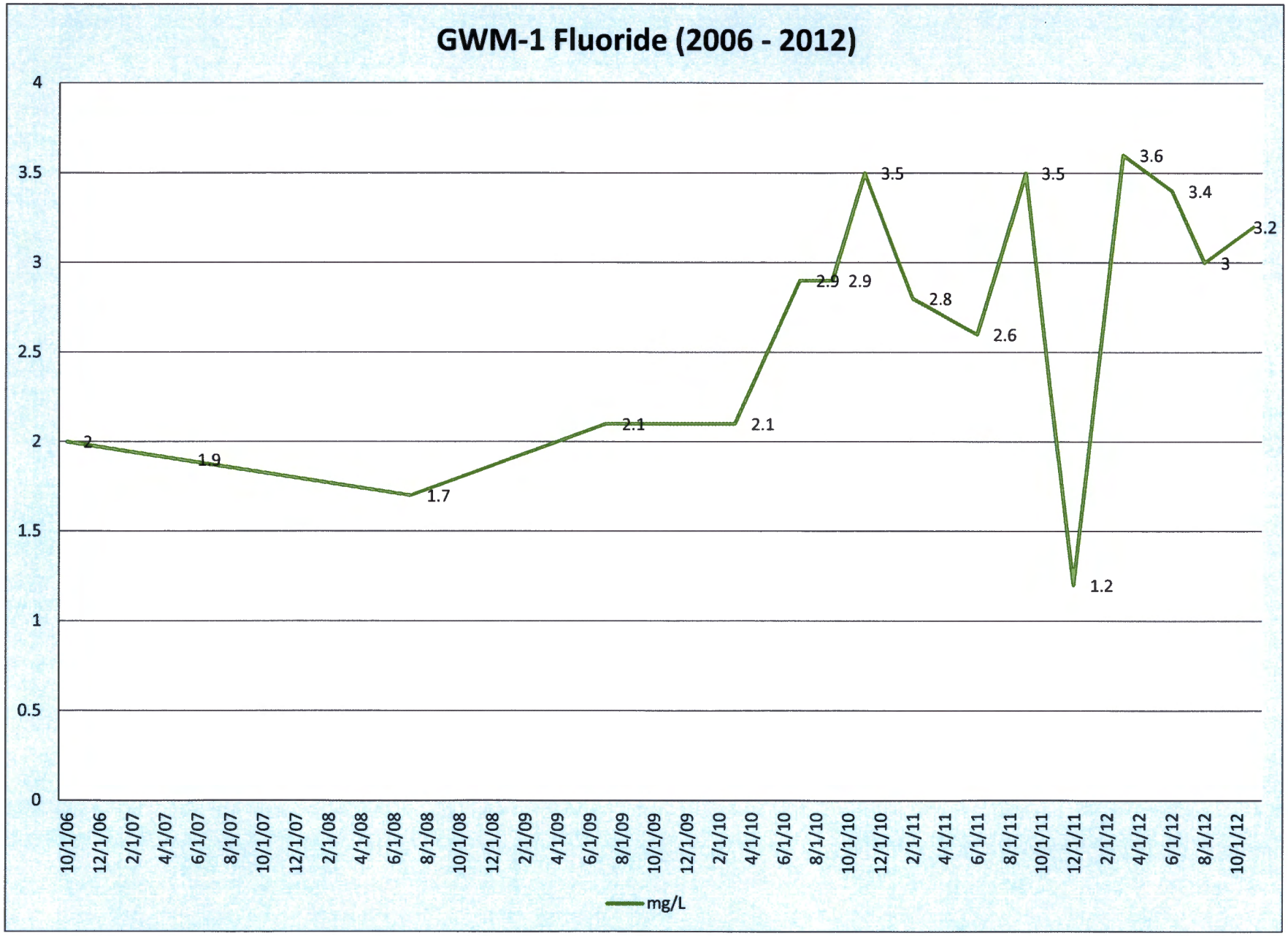
GRAPH 2


GWM-1 Ethylbenzene (2008 - 2012)
1.2E-02
1.0E-02
8.0E-03
6.0E-03
4.0E-03
2.0E-03
0.0E+00
0.011
7.4E-03
6.8E-03
6.7E-03
5.4E-03
5.3E-03
5.9E-03
4.2E-03
3.9E-03
3.5E-03
1.9E-03
2.5E-03
3.5E-03
0
7/1/08
9/1/08
11/1/08
1/1/09
3/1/09
5/1/09
7/1/09
9/1/09
11/1/09
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
7/1/12
9/1/12
11/1/12
mg/L

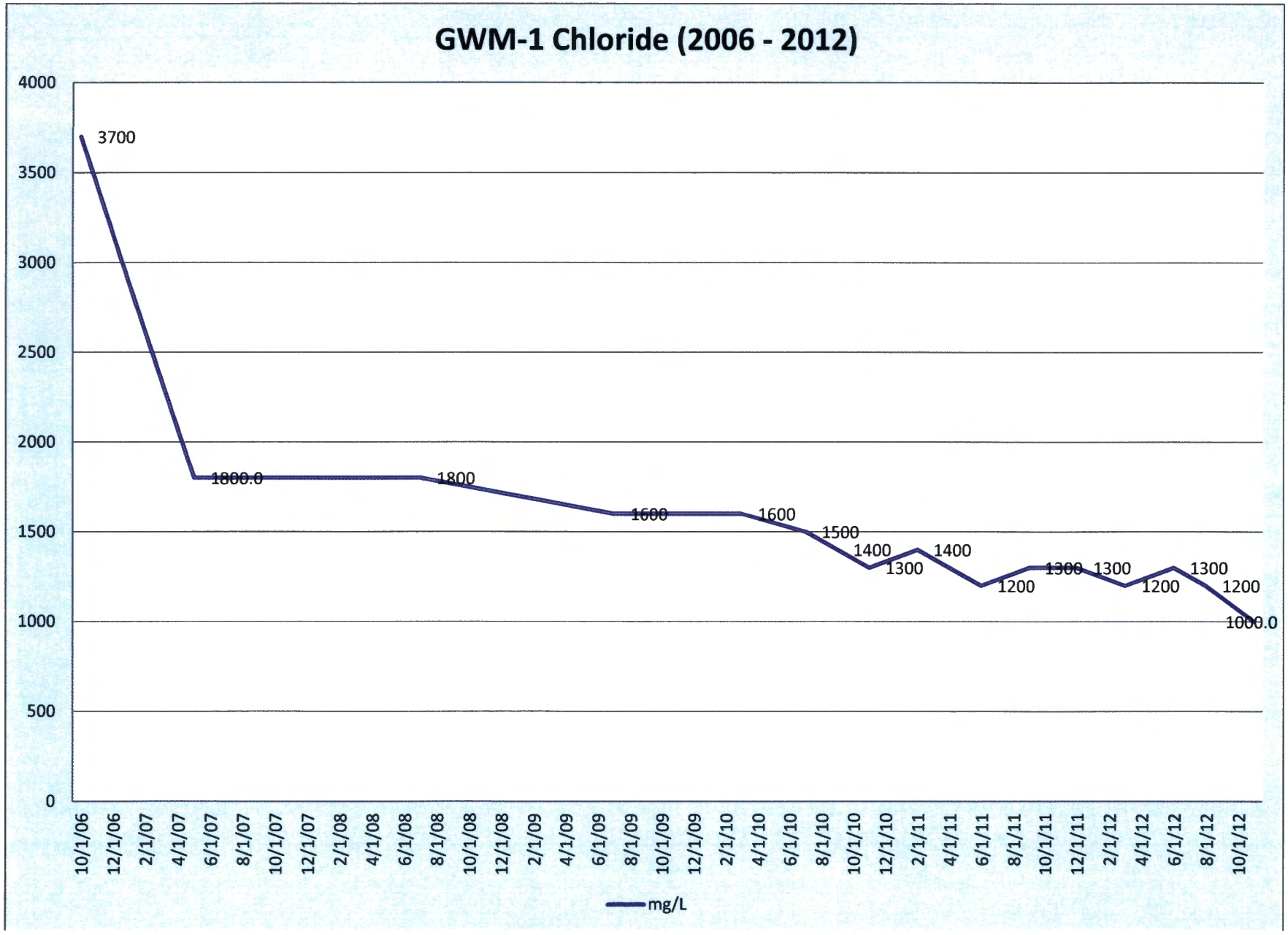
GRAPH 3


GWM-1 MTBE (2006 - 2012)
0.25
0.2
0.15
0.1
0.05
0
0.16
0.23
0.12
0.085
0.078
0.077
0.053
0.062
0.057
0.047
0.051
0.054
0.054
0.04
0.044
0.052
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

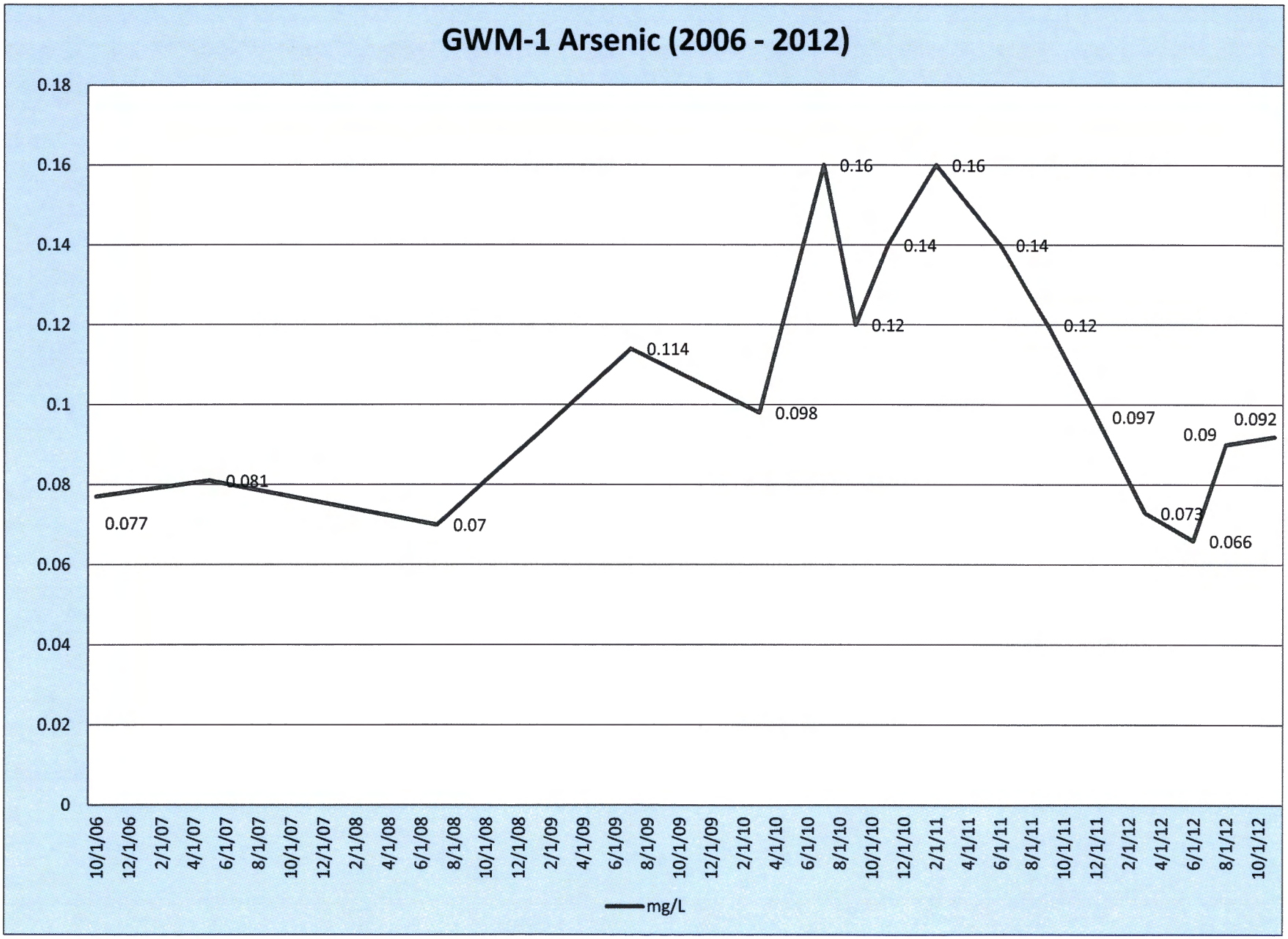
GRAPH 4


GWM-1 Fluoride (2006 - 2012)
4
3.5
3
2.5
2
1.5
1
0.5
0
2
1.9
1.7
2.1
2.1
2.9
2.9
3.5
2.8
2.6
3.5
1.2
3.6
3.4
3
3.2
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 5


GWM-1 Chloride (2006 - 2012)
4000
3500
3000
2500
2000
1500
1000
500
0
3700
1800.0
1800
1600
1600
1500
1400
1300
1400
1200
1300
1300
1200
1300
1200
1000.0
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 6


GWM-1 Arsenic (2006 - 2012)
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0.077
0.081
0.07
0.114
0.098
0.16
0.12
0.14
0.16
0.14
0.12
0.097
0.073
0.066
0.09
0.092
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
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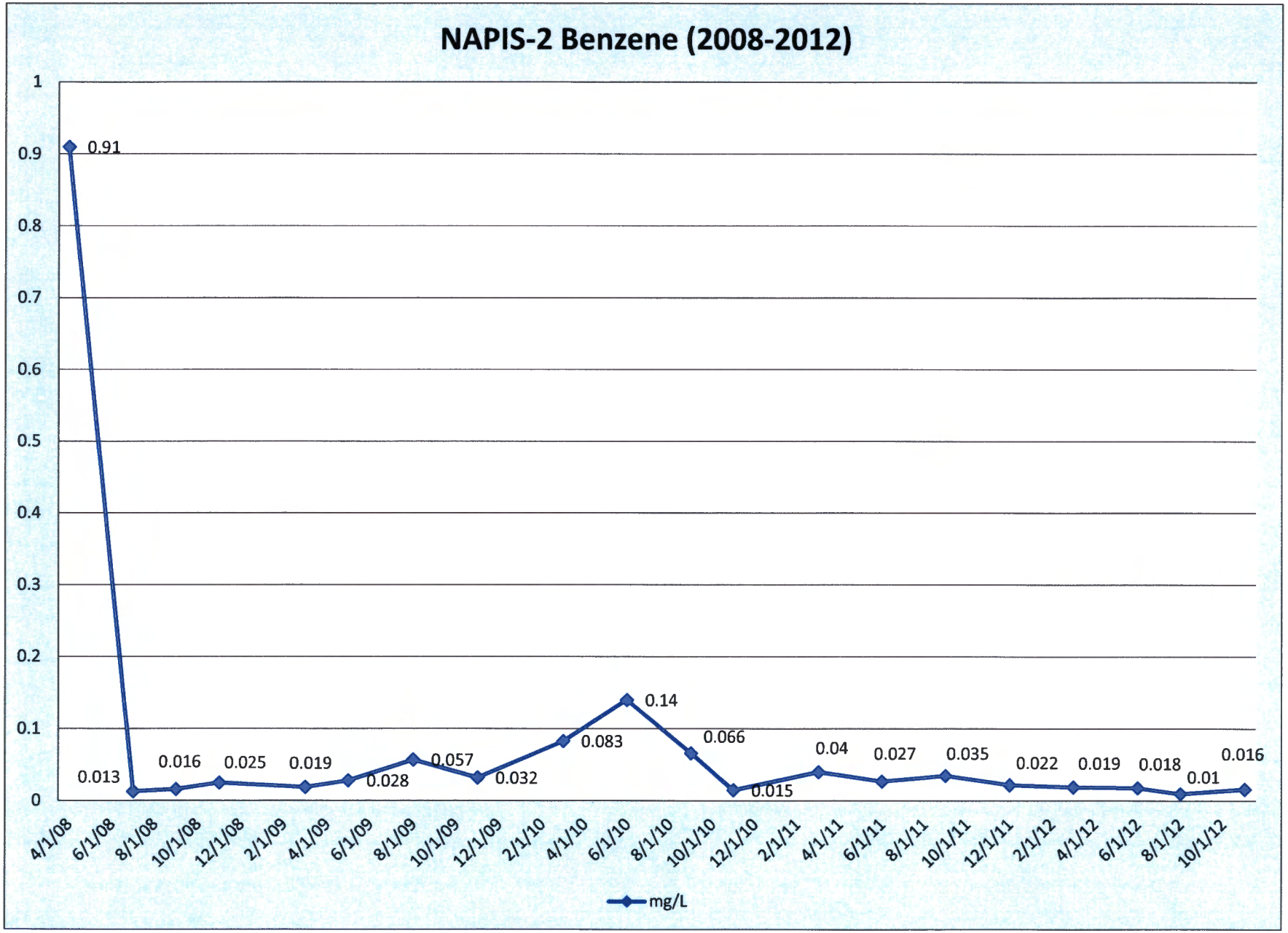
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 7


NAPIS-2 Benzene (2008-2012)
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.91
0.013
0.016
0.025
0.019
0.028
0.057
0.032
0.083
0.14
0.066
0.015
0.04
0.027
0.035
0.022
0.019
0.018
0.01
0.016
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
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6/1/11
8/1/11
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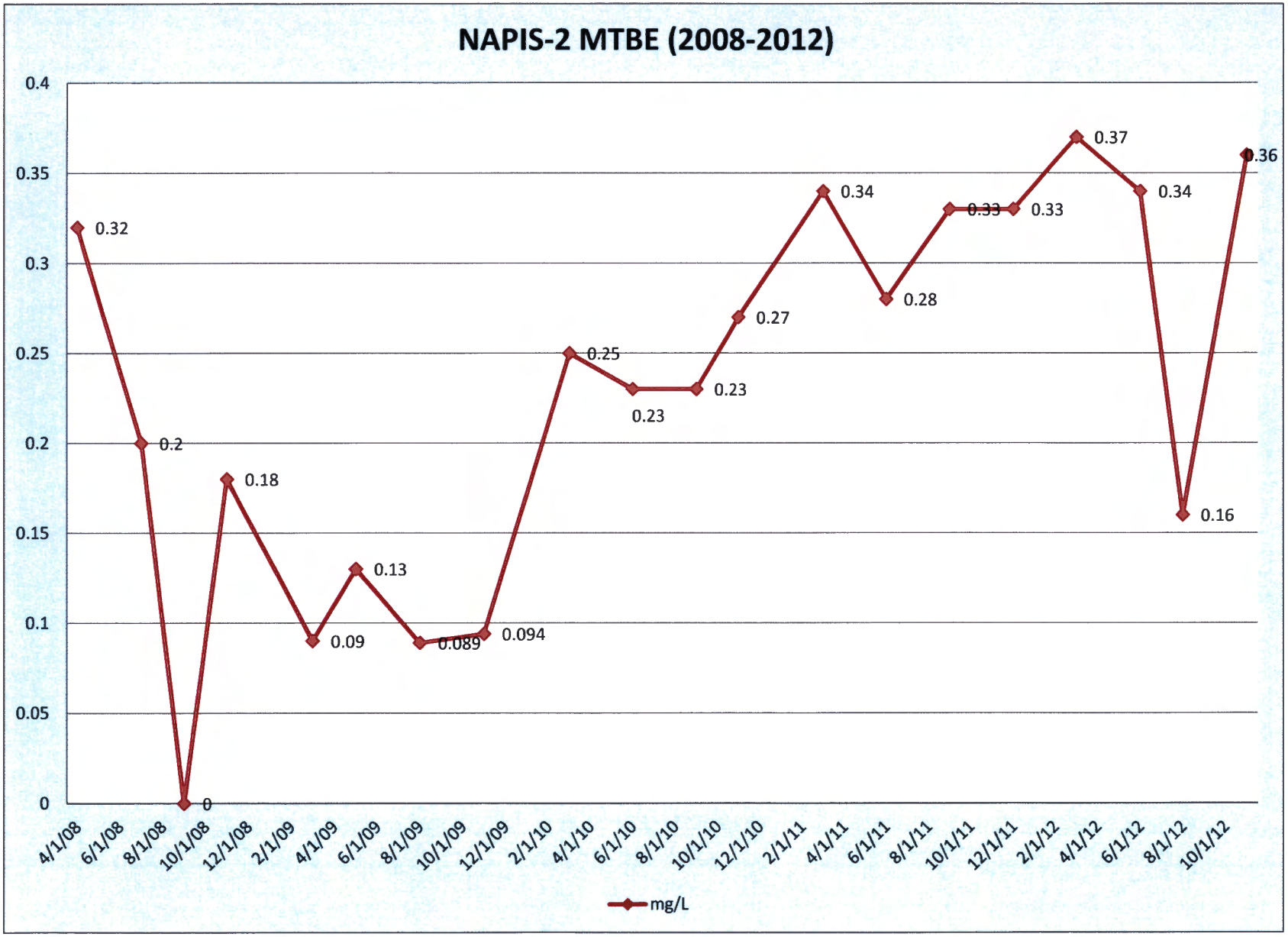
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 8


NAPIS-2 MTBE (2008-2012)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0.32
0.2
0
0.18
0.09
0.13
0.089
0.094
0.25
0.23
0.23
0.27
0.34
0.28
0.33
0.33
0.37
0.34
0.16
0.36
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
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4/1/11
6/1/11
8/1/11
10/1/11
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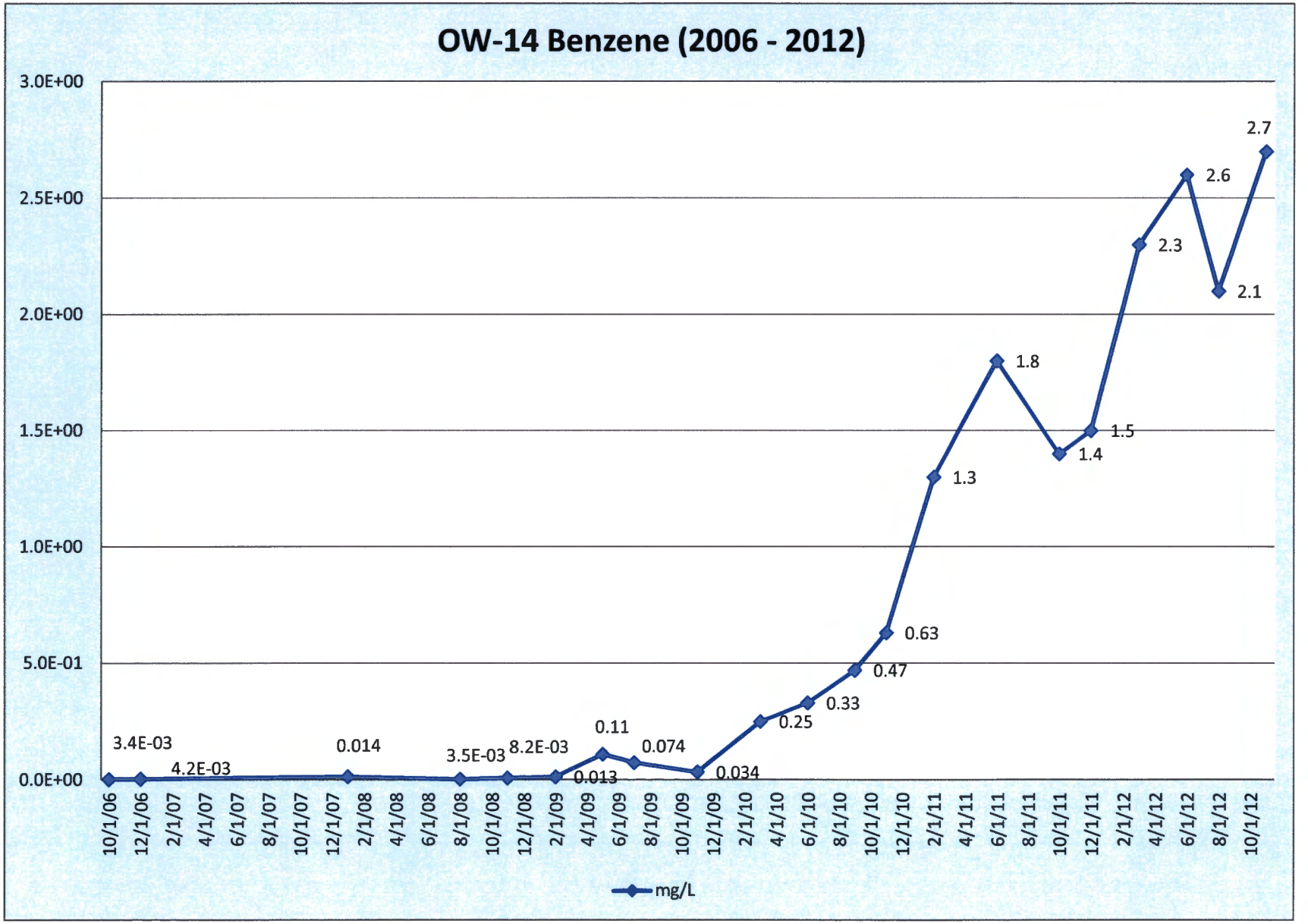
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 9


OW-14 Benzene (2006 - 2012)
3.0E+00
2.5E+00
2.0E+00
1.5E+00
1.0E+00
5.0E-01
0.0E+00
3.4E-03
4.2E-03
0.014
3.5E-03
8.2E-03
0.013
0.11
0.074
0.034
0.25
0.33
0.47
0.63
1.3
1.8
1.4
1.5
2.3
2.6
2.1
2.7
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
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6/1/11
8/1/11
10/1/11
12/1/11
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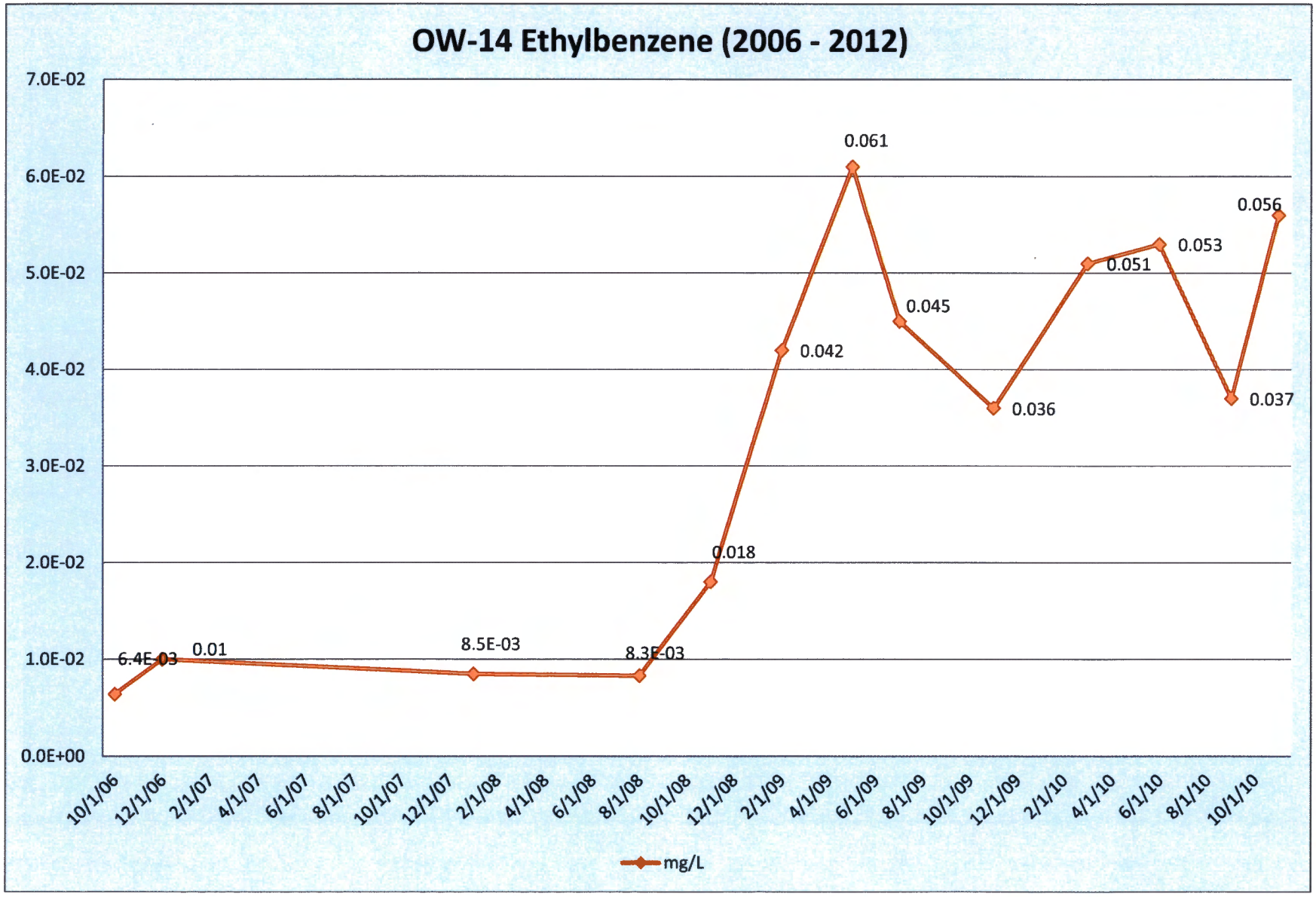
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 10


OW-14 Ethylbenzene (2006 - 2012)
7.0E-02
6.0E-02
5.0E-02
4.0E-02
3.0E-02
2.0E-02
1.0E-02
0.0E+00
6.4E-03
0.01
8.5E-03
8.3E-03
0.018
0.042
0.061
0.045
0.036
0.051
0.053
0.056
0.037
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
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6/1/09
8/1/09
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12/1/09
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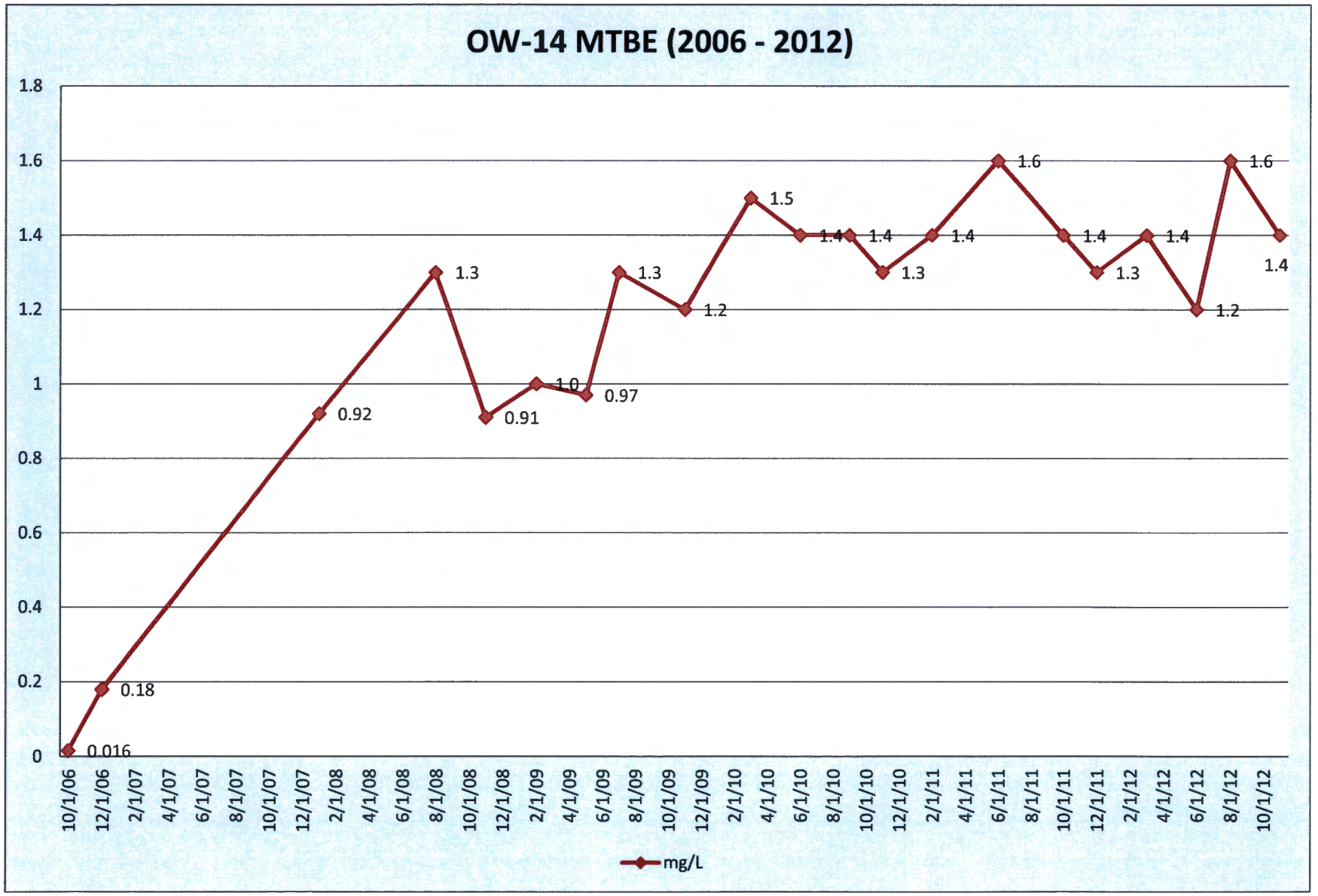
4/1/10
6/1/10
8/1/10
10/1/10
mg/L

GRAPH 11


OW-14 MTBE (2006 - 2012)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0.016
0.18
0.92
1.3
0.91
1.0
0.97
1.3
1.2
1.5
1.4
1.4
1.4
1.3
1.4
1.6
1.4
1.3
1.4
1.2
1.6
1.4
10/1/06
12/1/06
2/1/07
4/1/07
6/1/07
8/1/07
10/1/07
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
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2/1/09
4/1/09
6/1/09
8/1/09
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6/1/11
8/1/11
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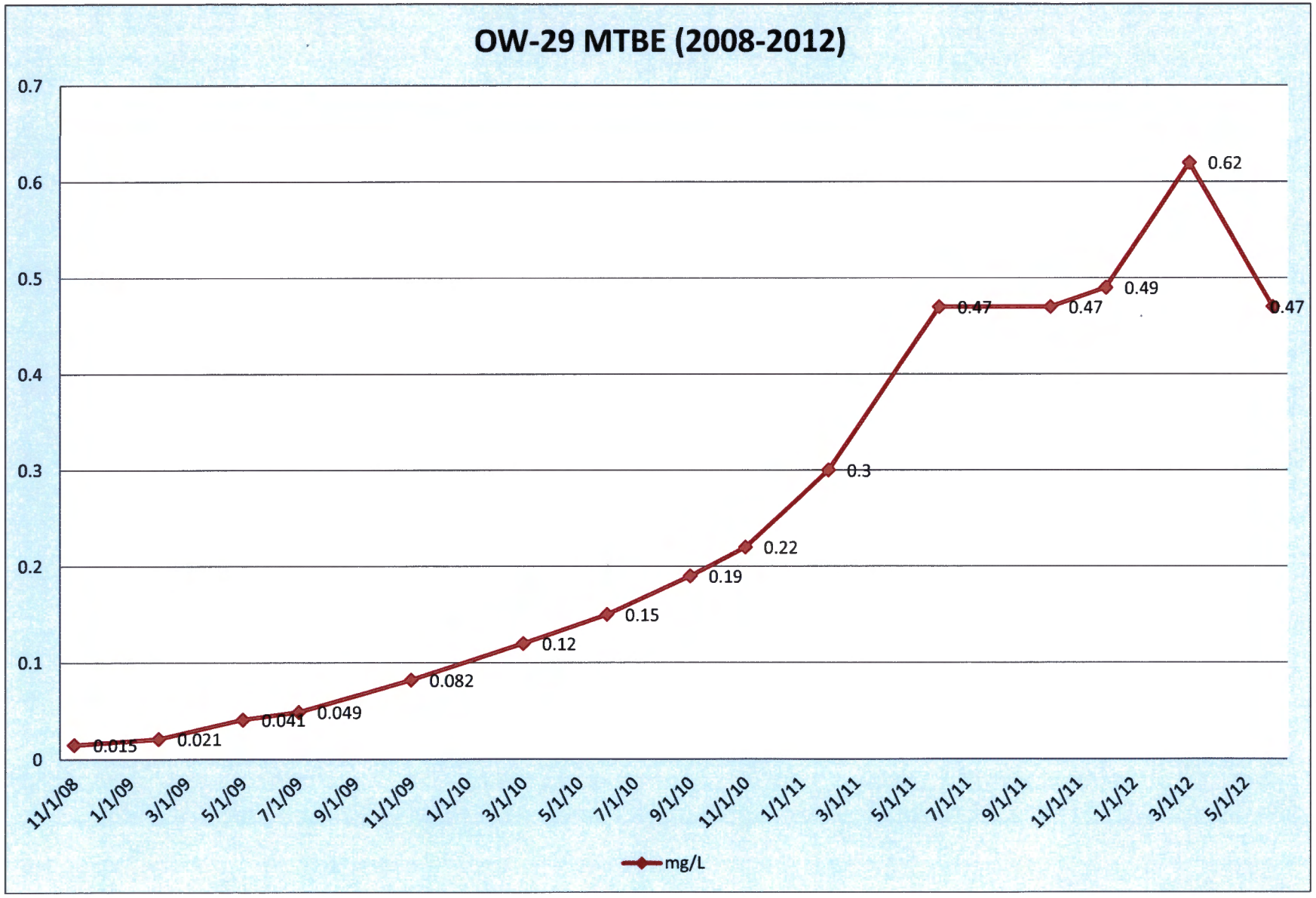
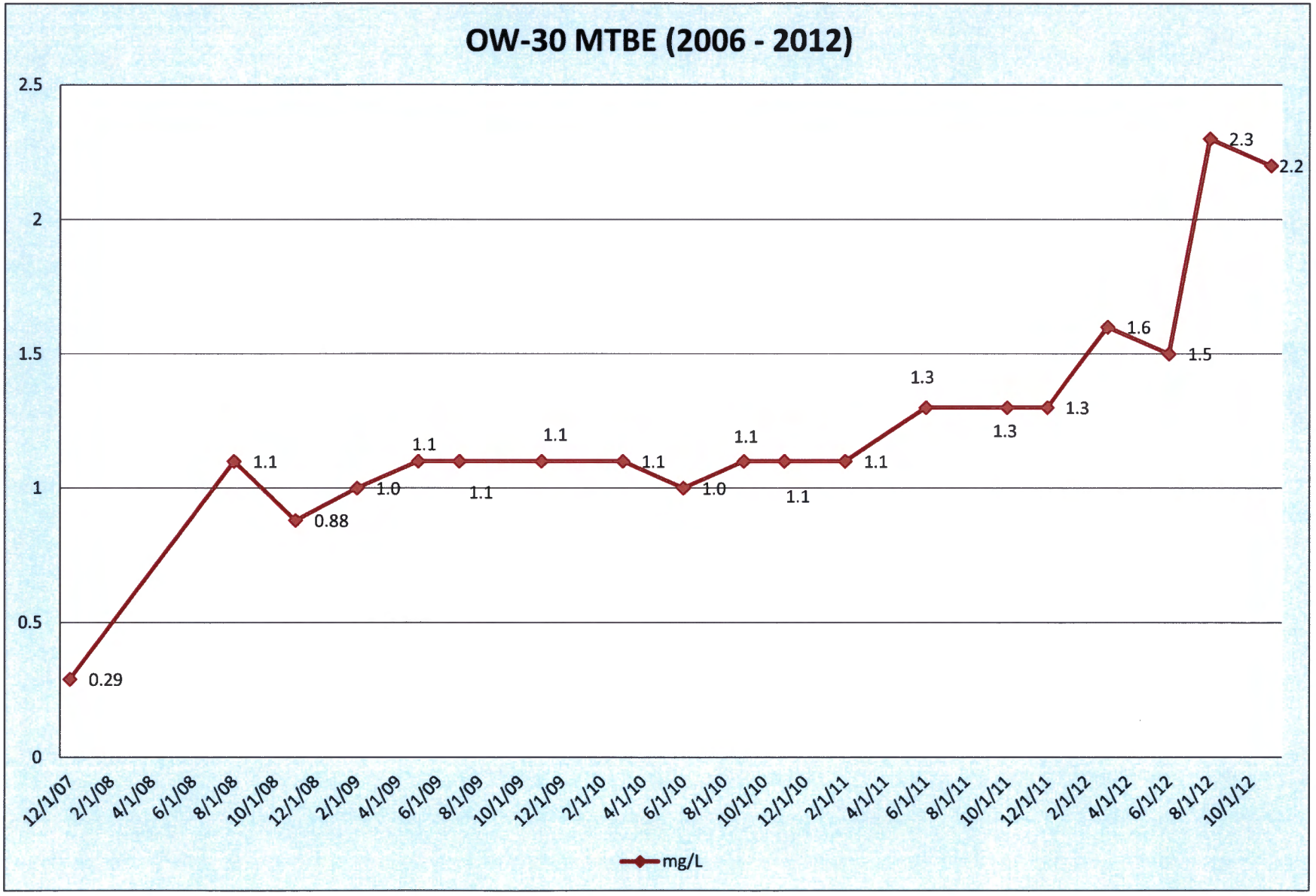
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

GRAPH 12


OW-29 MTBE (2008-2012)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0.015
0.021
0.041
0.049
0.082
0.12
0.15
0.19
0.22
0.3
0.47
0.47
0.49
0.62
0.47
11/1/08
1/1/09
3/1/09
5/1/09
7/1/09
9/1/09
11/1/09
1/1/10
3/1/10
5/1/10
7/1/10
9/1/10
11/1/10
1/1/11
3/1/11
5/1/11
7/1/11
9/1/11
11/1/11
1/1/12
3/1/12
5/1/12
mg/L

GRAPH 13


OW-30 MTBE (2006 - 2012)
2.5
2
1.5
1
0.5
0
0.29
1.1
0.88
1.0
1.1
1.1
1.1
1.0
1.1
1.1
1.1
1.3
1.3
1.3
1.6
1.5
2.3
2.2
12/1/07
2/1/08
4/1/08
6/1/08
8/1/08
10/1/08
12/1/08
2/1/09
4/1/09
6/1/09
8/1/09
10/1/09
12/1/09
2/1/10
4/1/10
6/1/10
8/1/10
10/1/10
12/1/10
2/1/11
4/1/11
6/1/11
8/1/11
10/1/11
12/1/11
2/1/12
4/1/12
6/1/12
8/1/12
10/1/12
mg/L

APPENDIX A

Separate Phase Hydrocarbons

RW-1 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2012

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed/Purged [2] (gal)	Water Purged [2] (gal)
2/22/2005	8:30	1st	NR	Start	32.46	36.5	4.04	14	NR
3/2/2005	7:45	1st	NR	Start	32.42	36.44	4.02	9	NR
3/8/2005	8:30	1st	NR	Start	31.92	36.35	4.43	15	NR
3/9/2005	830	1st	NR	Start	31.92	37.5	5.58	4	NR
3/11 to 3/18/05	NR	1st	NR	Start	NR	NR	NR	74	NR
3/18 to 3/23/05	NR	1st	Pump	Continue pumping	NR	NR	NR	48	NR
3/23 to 4/1/05	NR	1st	Pump	Continue pumping	NR	NR	NR	62	NR
4/1 To 4/4/05		2nd	Pump	Pump shutdown to measure	NR	NR	NR	27	NR
4/5/2005	11:30	2nd	Pump		34.75	38.92	4.17	NR	NR
4/4 to 4/15/05	11:00	2nd	Pump	Continue pumping	NR	NR	NR	50	NR
4-15 to 5-5-05	12:30	2nd	Pump	Continue pumping	NR	NR	NR	45	154
5-5 to 6-17-05	11:30	2nd	Pump	Continue pumping	NR	NR	NR	24	196
6/27/2005	14:30	2nd		Pump shutdown to measure	NR	NR	NR	NR	NR
6/28/2005	11:30	2nd			32.46	33.25	0.79	NR	NR
6/28/2005		2nd	Pump	Continue pumping	NR	NR	NR	NR	NR
6/17 to 7/8/2005	10:30	2nd	Pump	Continue pumping	NR	NR	NR	18	146
7/8 to 8/9/2005	13:30	3rd	Pump	Continue pumping	NR	NR	NR	28	350
8/9 to 9/16/2005	11:35	3rd			36.46	36.54	0.08	8	240
12/5/2005	13:15	4th			31.92	34.71	2.79	NR	NR
12/8/2005	14:00	4th	Pump	Start	NR	NR	NR	NR	NR
12/22/2005	15:30	4th		stop	NR	NR	NR	5	120
12/29/2005	14:00	4th	Bailer	Hand bailed	NR	NR	NR	0.5	4.5
3/16/2006	13:00	1st.			NR	NR	NR	NR	NR
3/16/2006	14:30	1st.	Pump	Start	32.23	34.48	2.25	NR	NR
3/23/2006	14:30	1st.		Stop	NR	NR	NR	NR	NR

RW-1 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed/Purged [2] (gal)	Water Purged [2] (gal)
3/27/2006	15:30	1st.	Pump	Start	NR	NR	NR	NR	NR
3/31/2006	11:30	1st.	Pump	Continue pumping	NR	NR	NR	7	174
4/3/2006	11:30	2nd		Stop	NR	NR	NR	1	38
4/4/2006	11:00	2nd			32.75	33.08	0.33	NR	NR
6/6/2006	13:00	2nd			32.39	34.54	2.15	NR	NR
6/8/2006	15:00	2nd	Pump	Start	NR	NR	NR	NR	NR
6/29/2006	10:00	2nd		Stop	NR	NR	NR	8	365
7/31/2006	11:45	3rd			33.06	33.48	0.42	NR	NR
7/31/2006	11:45	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/3/2006	14:20	3rd		Stopped pump	NR	NR	NR	2	87
8/8/2006	9:00	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/10/2006	15:30	3rd	Pump	Start pump	NR	NR	NR	NR	NR
8/22/2006	9:00	3rd		Stopped. Pulled pump	NR	NR	NR	4.9	373
8/22/2006	9:45	3rd	Pump	Start pump	33.1	33.4	0.3	NR	NR
12/21/2006	15:55	4th	Pump	Start pump	35.2	36	0.8	0.62	70
2/21/2007	10:15	1st.	Pump	Start pump	33.42	34.6	1.18	0.63	53.5
6/5/2007	10:00	2nd		Compressor Down	32.42	32.71	0.29	NR	NR
6/5/2007	10:10	2nd		Hand Bailed	NR	NR	NR	0.05	9
6/6/2007	8:40	2nd		Hand bailed	NR	NR	NR	0.1	11
6/13/2007	14:00	2nd		Hand bailed	NR	NR	NR	0.1	12
6/14/2007	10:40	2nd		Hand bailed	NR	NR	NR	0.05	8
7/10/2007	10:08	3rd		Hand bailed	32.42	32.71	0.29	0.3	18
7/11/2007	9:25	3rd		Hand bailed	NR	NR	NR	0.21	NR
7/23/2007	10:00	3rd		Hand bailed	NR	NR	NR	0.1	NR
11/26/2007	10:50	4th		Hand bailed	30.76	36.45	5.69	0.18	37
2/18/2008	15:32	1st.		Hand Bailed - pump frozen	30.18	34.77	4.59	1.66	36
5/21/2008	14:10	2nd	Pump	Used Pump	30.33	34.57	4.24	1.39	51
9/12/2008[1]	14:30	3rd		Bladder pump malfunctioned	30.03	34.59	4.56	Not Bailed	0

RW-1 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [2] (ft)	Product Bailed/Purged [2] (gal)	Water Purged [2] (gal)
11/13/2008	13:00	4th	Pump	Used Pump	30.02	34.63	4.61	0.94	65
2/11/2009	14:05	1st.	Pump	Used Pump	30.21	31.72	1.51	0.29	90
5/5/2009	11:30	2nd	Pump	Used Pump	30.22	30.8	0.58	0.41	76
8/10/2009	9:22	3rd	Pump	Used Pump	30.69	31.02	0.33	0.89	98
10/28/2009	10:55	4th	Pump	Used Pump	30.56	30.75	0.19	0.19	74
3/3/2010	9:00	1st	Pump	Used Pump	30.89	31.05	0.16	0.21	31
6/3/2010	13:10	2nd	Pump	Used Pump	30.99	31.09	0.1	0.1	32
9/20/2010	14:00	3rd	Pump	Used Pump	29.91	30.06	0.15	0.25	34
11/3/2010	9:10	4th	Pump	Used Pump	30.89	31.01	0.12	0.1	31
3/9/2011	10:19	1st	Pump	Used Pump	30.04	30.15	0.11	0.12	40
6/27/2011	8:05	2nd	Pump	Used Pump	30.52	30.63	0.11	0.1	45
10/3/2011	15:07	Annual	Pump	Used Pump	30.81	30.9	0.09	0.11	42
11/8/2011	8:30	4th	Pump	Used Pump	30.77	30.85	0.08	0.09	38
3/15/2012	10:30	1st	Pump	Used Pump	29.31	29.34	0.03	0.02	22
6/4/2012	9:00	2nd	Pump	Used Pump	29.39	29.41	0.02	0.05	40
8/13/2012	10:30	3rd	Pump	Used Pump	29.54	30.13	0.59	0.4	40
10/8/2012	9:40	4th	Pump	Used Pump	29.28	30.18	0.9	0.5	35
					YTD TOTALS		**62.67**	**464.56**	**3386**

NOTES:
FT - Feet
Gal - Gallon
NR - Not recorded
YTD -Year to date
1)Bladder pump has torn diaphragm. Pump non-repairable. Ordered new pump
2) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.

RW-5 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2012

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

RW-5 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
9/20/2010	14:24	3rd	Bailer	Start	0	31.94	0	0	0
11/3/2010	9:30	4th	Bailer	Start	0	31.94	0	0	0
3/9/2011	10:29	1st	Bailer	Start	0	30.05	0	0	20
6/27/2011	8:40	2nd	Bailer	Start	0	28.96	0	0	20
10/4/2011	8:15	3rd	Bailer	Start	0	29.89	0	0	14
11/8/2011	9:20	4th	Bailer	Start	0	29.85	0	0	17
3/15/2012	9:50	1st	Bailer	Start	0	29.32	0	0	15
6/4/2012	9:20	2nd	Bailer	Start	0	29.37	0	0	10
8/13/2012	10:50	3rd	Bailer	Start	0	29.49	0	0	10
10/8/2012	10:10	4th	Bailer	Start	0	29.58	0	0	15
					YTD TOTALS		**13.49**	**26.48**	**204**

NOTES:
FT - Feet
Gal - Gallon
NR - Not recorded
YTD - Year to date
1) Measurements given are estimated values based on the technicians interpretation and should not be viewed as accurate.

RW-6 HYDROCARBON RECOVERY LOG
2/22/05 thru 12/2012

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

RW-6 HYDROCARBON RECOVERY LOG - Continued

Measurement Date	Time	Quarter	Method	Status	Depth to Product (ft)	Depth to Water (ft)	Product Thickness Level [1] (ft)	Product Bailed/Purged [1] (gal)	Water Purged [1] (gal)
3/9/2011	10:34	1st	Bailer	Start	30.24	30.26	0.02	0.04	25
6/27/2011	9:25	2nd	Bailer	Start	30.11	30.15	0.04	0.04	30
10/4/2011	9:05	3rd	Bailer	Start	29.91	29.94	0.03	0.09	30
11/8/2011	9:45	4th	Bailer	Start	29.90	29.93	0.03	0.05	25
3/15/2012	9:55	1st	Bailer	Start	0	29.46	0	0	17
6/4/2012	9:25	2nd	Bailer	Start	0	29.54	0	0	20
8/13/2012	11:00	3rd	Bailer	Start	0	29.57	0	0	15
10/8/2012	10:15	4th	Bailer	Start	0	29.62	0	0	15
					YTD TOTALS		**16.25**	**34.99**	**362**

NOTES:
FT - Feet
Gal - Gallon
NR - Not recorded
YTD - Year to date
1) Measurements given are estimated values based on the technicians interpretation.

APPENDIX B

Applicable Standards

NMAC 20.6.2.3103 – Standards for Ground Water

Table 6.2 TPH Screening Guidelines for Potable Ground Water (GW-1)

NMAC 20.6.2.2101 – General Requirements

20.6.2.2004 - 20.6.2.2099: [RESERVED]
[12-1-95; 20.6.2.2001 - 20.6.2.2099 NMAC - Rn, 20 NMAC 6.2.I.1221-2099, 1-15-01; A, 5-18-11]

20.6.2.2100 APPLICABILITY: The requirements of Section 20.6.2.2101 and 20.6.2.2102 NMAC shall not apply to any discharge which is subject to a permit under the National Pollutant Discharge Elimination System of P. L. 92-500; provided that any discharger who is given written notice of National Pollutant Discharge Elimination System permit violation from the Administrator of the Environmental Protection Agency and who has not corrected the violation within thirty days of receipt of said notice shall be subject to Section 20.6.2.2101 and 20.6.2.2102 NMAC until in compliance with the National Pollution Discharge Elimination System permit conditions; provided further that nothing in this Part shall be construed as a deterrent to action under Section 74-6-11 NMSA, 1978.
[8-13-76; 20.6.2.2100 NMAC - Rn, 20 NMAC 6.2.II.2100, 1-15-01]

20.6.2.2101 GENERAL REQUIREMENTS:

A. Except as otherwise provided in Sections 20.6.2.2000 through 20.6.2.2201 NMAC, no person shall cause or allow effluent to discharge to a watercourse if the effluent as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 125 mg/l
(c)	Settleable Solids	Less than 0.5 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Examination of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.
[4-20-68, 3-14-71, 10-8-71, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2101 NMAC - Rn, 20 NMAC 6.2.II.2101, 1-15-01]

20.6.2.2102 RIO GRANDE BASIN--COMMUNITY SEWERAGE SYSTEMS:

A. No person shall cause or allow effluent from a community sewerage system to discharge to a watercourse in the Rio Grande Basin between the headwaters of Elephant Butte Reservoir and Angostura Diversion Dam as described in Subsection E of this Section if the effluent, as indicated by:

(1) any two consecutive daily composite samples;

(2) more than one daily composite sample in any thirty-day period (in which less than ten (10) daily composite samples are examined);

(3) more than ten percent (10%) of the daily composite samples in any thirty-day period (in which ten (10) or more daily composite samples are examined); or

(4) a grab sample collected during flow from an intermittent or infrequent discharge does not conform to the following:

(a)	Bio-chemical Oxygen Demand (BOD)	Less than 30 mg/l
(b)	Chemical Oxygen Demand (COD)	Less than 80 mg/l
(c)	Settleable Solids	Less than 0.1 mg/l
(d)	Fecal Coliform Bacteria	Less than 500 organisms per 100 ml
(e)	pH	Between 6.6 and 8.6

B. Upon application, the secretary may eliminate the pH requirement for any effluent source that the secretary determines does not unreasonably degrade the water into which the effluent is discharged.

C. Subsection A of this Section does not apply to the weight of constituents in the water diverted.

D. Samples shall be examined in accordance with the most current edition of Standard Methods for the Analysis of Water and Wastewater published by the American Public Health Association or the most current edition of Methods for Chemical Analysis of Water and Wastes published by the Environmental Protection Agency, where applicable.

E. The following is a description of the Rio Grande Basin from the headwaters of Elephant Butte Reservoir to Angostura Diversion Dam as used in this Section. Begin at San Marcial USGS gauging station, which is the headwaters of Elephant Butte Reservoir Irrigation Project, thence northwest to U.S. Highway 60, nine miles ± west of Magdalena; thence west along the northeast edge of the San Agustin Plains closed basin; thence north along the east side of the north plains closed basin to the Continental Divide; thence northly along the Continental Divide to the community of Regina on State Highway 96; thence southeasterly along the crest of the San Pedro Mountains to Cerro Toledo Peak; thence southwesterly along the Sierra de Los Valles ridge and the Borrego Mesa to Bodega Butte; thence southerly to Angostura Diversion Dam which is the upper reach of the Rio Grande in this basin; thence southeast to the crest and the crest of the Manzano Mountains and the Los Pinos Mountains; thence southerly along the divide that contributes to the Rio Grande to San Marcial gauging station to the point and place of beginning; excluding all waters upstream of Jemez Pueblo which flow into the Jemez River drainage and the Bluewater Lake. Counties included in the basin are:

(1) north portion of Socorro County;
(2) northeast corner of Catron County;
(3) east portion of Valencia County;
(4) west portion of Bernalillo County;
(5) east portion of McKinley County; and
(6) most of Sandoval County.

[3-14-71, 9-3-72, 8-13-76, 2-20-81, 12-1-95; 20.6.2.2102 NMAC - Rn, 20 NMAC 6.2.II.2102, 1-15-01]

20.6.2.2103 - 20.6.2.2199: [RESERVED]
[12-1-95; 20.6.2.2103 - 20.6.2.2199 NMAC - Rn, 20 NMAC 6.2.II.2103-2199, 1-15-01]

20.6.2.2200 WATERCOURSE PROTECTION:
[12-1-95; 20.6.2.2200 NMAC - Rn, 20 NMAC 6.2.II.2200, 1-15-01]

20.6.2.2201 DISPOSAL OF REFUSE: No person shall dispose of any refuse in a natural watercourse or in a location and manner where there is a reasonable probability that the refuse will be moved into a natural watercourse by leaching or otherwise. Solids diverted from the stream and returned thereto are not subject to abatement under this Section.
[4-20-68, 9-3-72; 20.6.2.2201 NMAC - Rn, 20 NMAC 6.2.II.2201, 1-15-01]

20.6.2.2202 - 20.6.2.2999: [RESERVED]
[12-1-95; 20.6.2.2202 - 20.6.2.2999 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3000 PERMITTING AND GROUND WATER STANDARDS:
[12-1-95; 20.6.2.3000 NMAC - Rn, 20 NMAC 6.2.III, 1-15-01]

20.6.2.3001 - 20.6.2.3100: [RESERVED]
[12-1-95; 20.6.2.3001 - 20.6.2.3100 NMAC - Rn, 20 NMAC 6.2.II.2202-3100, 1-15-01]

20.6.2.3101 PURPOSE:

A. The purpose of Sections 20.6.2.3000 through 20.6.2.3114 NMAC controlling discharges onto or below the surface of the ground is to protect all ground water of the state of New Mexico which has an existing concentration of 10,000 mg/l or less TDS, for present and potential future use as domestic and agricultural water supply, and to protect those segments of surface waters which are gaining because of ground water inflow, for uses designated in the New Mexico Water Quality Standards. Sections 20.6.2.3000 through 20.6.2.3114 NMAC are written so that in general:

(1) if the existing concentration of any water contaminant in ground water is in conformance with the standard of 20.6.2.3103 NMAC, degradation of the ground water up to the limit of the standard will be allowed; and

(2) if the existing concentration of any water contaminant in ground water exceeds the standard of Section 20.6.2.3103 NMAC, no degradation of the ground water beyond the existing concentration will be allowed.

B. Ground water standards are numbers that represent the pH range and maximum concentrations of water contaminants in the ground water which still allow for the present and future use of ground water resources.

C. The standards are not intended as maximum ranges and concentrations for use, and nothing herein contained shall be construed as limiting the use of waters containing higher ranges and concentrations.

[2-18-77; 20.6.2.3101 NMAC - Rn, 20 NMAC 6.2.III.3101, 1-15-01]

20.6.2.3102: [RESERVED]

[12-1-95; 20.6.2.3102 NMAC - Rn, 20 NMAC 6.2.III.3102, 1-15-01]

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO_3 as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	0.01 mg/l

(30) 1,1,2,2-tetrachloroethane.....0.01 mg/l
(31) vinyl chloride.....0.001 mg/l
(32) PAHs: total naphthalene plus monomethylnaphthalenes.....0.03 mg/l
(33) benzo-a-pyrene.....0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1) Chloride (Cl) .....250.0 mg/l
(2) Copper (Cu) .....1.0 mg/l
(3) Iron (Fe) .....1.0 mg/l
(4) Manganese (Mn) .....0.2 mg/l
(6) Phenols.....0.005 mg/l
(7) Sulfate (SO_4) .....600.0 mg/l
(8) Total Dissolved Solids (TDS) .....1000.0 mg/l
(9) Zinc (Zn) .....10.0 mg/l
(10) pH.....between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of this section unless otherwise provided.

(1) Aluminum (Al)..... .....5.0 mg/l
(2) Boron (B) .....0.75 mg/l
(3) Cobalt (Co) .....0.05 mg/l
(4) Molybdenum (Mo) .....1.0 mg/l
(5) Nickel (Ni) .....0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04.]

20.6.2.3104 DISCHARGE PERMIT REQUIRED: Unless otherwise provided by this Part, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into ground water unless he is discharging pursuant to a discharge permit issued by the secretary. When a permit has been issued, discharges must be consistent with the terms and conditions of the permit. In the event of a transfer of the ownership, control, or possession of a facility for which a discharge permit is in effect, the transferee shall have authority to discharge under such permit, provided that the transferee has complied with Section 20.6.2.3111 NMAC, regarding transfers. [2-18-77, 12-24-87, 12-1-95; Rn & A, 20.6.2.3104 NMAC - 20 NMAC 6.2.III.3104, 1-15-01; A, 12-1-01]

20.6.2.3105 EXEMPTIONS FROM DISCHARGE PERMIT REQUIREMENT: Sections 20.6.2.3104 and 20.6.2.3106 NMAC do not apply to the following:

A. Effluent or leachate which conforms to all the listed numerical standards of Section 20.6.2.3103 NMAC and has a total nitrogen concentration of 10 mg/l or less, and does not contain any toxic pollutant. To determine conformance, samples may be taken by the agency before the effluent or leachate is discharged so that it may move directly or indirectly into ground water; provided that if the discharge is by seepage through non-natural or altered natural materials, the agency may take samples of the solution before or after seepage. If for any reason the agency does not have access to obtain the appropriate samples, this exemption shall not apply;

B. Effluent which is discharged from a sewerage system used only for disposal of household and other domestic waste which is designed to receive and which receives 2,000 gallons or less of liquid waste per day;

C. Water used for irrigated agriculture, for watering of lawns, trees, gardens or shrubs, or for irrigation for a period not to exceed five years for the revegetation of any disturbed land area, unless that water is received directly from any sewerage system;

D. Discharges resulting from the transport or storage of water diverted, provided that the water diverted has not had added to it after the point of diversion any effluent received from a sewerage system, that the source of the water diverted was not mine workings, and that the secretary has not determined that a hazard to public health may result;

E. Effluent which is discharged to a watercourse which is naturally perennial; discharges to dry arroyos and ephemeral streams are not exempt from the discharge permit requirement, except as otherwise provided in this section;

F. Those constituents which are subject to effective and enforceable effluent limitations in a National Pollutant Discharge Elimination System (NPDES) permit, where discharge onto or below the surface of the ground so that water contaminants may move directly or indirectly into ground water occurs downstream from the outfall where NPDES effluent limitations are imposed, unless the secretary determines that a hazard to public health may result. For purposes of this subsection, monitoring requirements alone do not constitute effluent limitations;

G. Discharges resulting from flood control systems;

H. Leachate which results from the direct natural infiltration of precipitation through disturbed materials, unless the secretary determines that a hazard to public health may result;

I. Leachate which results entirely from the direct natural infiltration of precipitation through undisturbed materials;

J. Leachate from materials disposed of in accordance with the Solid Waste Management Regulations (20 NMAC 9.1) adopted by the New Mexico Environmental Improvement Board;

K. Natural ground water seeping or flowing into conventional mine workings which re-enters the ground by natural gravity flow prior to pumping or transporting out of the mine and without being used in any mining process; this exemption does not apply to solution mining;

L. Effluent or leachate discharges resulting from activities regulated by a mining plan approved and permit issued by the New Mexico Coal Surface Mining Commission, provided that this exemption shall not be construed as limiting the application of appropriate ground water protection requirements by the New Mexico Coal Surface Mining Commission;

M. Effluent or leachate discharges which are regulated by the Oil Conservation Commission and the regulation of which by the Water Quality Control Commission would interfere with the exclusive authority granted under Section 70-2-12 NMSA 1978, or under other laws, to the Oil Conservation Commission.

[2-18-77, 6-26-80, 7-2-81, 12-24-87, 12-1-95; 20.6.2.3105 NMAC - Rn, 20 NMAC 6.2.III.3105, 1-15-01; A, 12-1-01]

20.6.2.3106 APPLICATION FOR DISCHARGE PERMITS AND RENEWALS:

A. Any person who, before or on June 18, 1977, is discharging any of the water contaminants listed in Section 20.6.2.3103 NMAC or any toxic pollutant so that they may move directly or indirectly into ground water shall, within 120 days of receipt of written notice from the secretary that a discharge permit is required, or such longer time as the secretary shall for good cause allow, submit a discharge plan to the secretary for approval; such person may discharge without a discharge permit until 240 days after written notification by the secretary that a discharge permit is required or such longer time as the secretary shall for good cause allow.

B. Any person who intends to begin, after June 18, 1977, discharging any of the water contaminants listed in Section 20.6.2.3103 NMAC or any toxic pollutant so that they may move directly or indirectly into ground water shall notify the secretary giving the information enumerated in Subsection B of Section 20.6.2.1201NMAC; the secretary shall, within 60 days, notify such person if a discharge permit is required; upon submission, the secretary shall review the discharge plan pursuant to Sections 20.6.2.3108 and 20.6.2.3109 NMAC. For good cause shown the secretary may allow such person to discharge without a discharge permit for a period not to exceed 120 days.

C. A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use or processes expected to naturally occur which will ensure compliance with this Part. At least the following information shall be included in the plan:

(1) Quantity, quality and flow characteristics of the discharge;

(2) Location of the discharge and of any bodies of water, watercourses and ground water discharge sites within one mile of the outside perimeter of the discharge site, and existing or proposed wells to be used for monitoring;

(3) Depth to and TDS concentration of the ground water most likely to be affected by the discharge;

(4) Flooding potential of the site;

(5) Location and design of site(s) and method(s) to be available for sampling, and for measurement or calculation of flow;

(6) Depth to and lithological description of rock at base of alluvium below the discharge site if such information is available;

(7) Any additional information that may be necessary to demonstrate that the discharge permit will not result in concentrations in excess of the standards of Section 20.6.2.3103 NMAC or the presence of any toxic pollutant at any place of withdrawal of water for present or reasonably foreseeable future use. Detailed information

- Not considering the effects of additivity when screening multiple chemicals.

It is important to note that the generic NMED SSLs were developed assuming distinct soil horizons for each receptor. The soils of interest differ according to the exposure pathway being addressed. For direct ingestion, dermal, and fugitive dust exposure pathways, the primary soil horizon of concern are surface soils. For inhalation of volatiles and migration to groundwater, subsurface soils are of primary concern. Both a residential receptor and a commercial/industrial worker are typically exposed only to surface soil, which may be defined as extending to a depth of approximately two feet below ground surface, depending on site-specific conditions and the amount of intrusive activity that may occur. Construction workers will typically have much greater exposures to subsurface soils. Therefore, when generic SSLs are used for screening level evaluations at a facility, site-specific conditions must be evaluated for each receptor to determine if the assumptions associated with the generic SSLs are appropriate for comparison with the available site data.

6.0 TOTAL PETROLEUM HYDROCABONS (TPH)

In some instances, it may be practical to assess areas of soil contamination that are the result of releases of petroleum products such as jet fuel and diesel, using total petroleum hydrocarbon (TPH) analyses. TPH results may be used to delineate the extent of petroleum-related contamination at these sites and ascertain if the residual level of petroleum products in soil represents an unacceptable risk to future users of the site. Petroleum hydrocarbons represent complex mixtures of compounds, some of which are regulated constituents and some compounds that are not regulated. In addition, the amount and types of the constituent compounds in a petroleum hydrocarbon release differ widely depending on what type of product was spilled and how the spill has weathered. This variability makes it difficult to determine the toxicity of weathered petroleum products in soil solely from TPH results; however, these results can be used to approximate risk in some cases, depending upon the nature of the petroleum product, the release scenario, how well the site has been characterized, and anticipated potential future land uses. In some cases, site cleanup cannot be based solely on the results of TPH sampling. NMED will make these determinations on a case by case basis. If NMED determines that additional data are necessary, these TPH guidelines must be used in conjunction with the SSLs for individual petroleum-related contaminants in Table A-1 and other contaminants, as applicable.

The screening levels for each petroleum carbon range from the Massachusetts Department of Environmental Protection (MADEP) Volatile Petroleum Hydrocarbons/Extractable Petroleum Hydrocarbons (VPH/EPH) approach and the percent composition table below were used to generate screening levels corresponding to total TPH. Except for waste oil, the information in the compositional assumptions table was obtained from the Massachusetts Department of Environmental Protection guidance document *Implementation of the MADEP VPH/EPH Approach* (October 31, 2002). TPH toxicity (MADEP, 2009) was based only on the weighted sum of the toxicity of the hydrocarbon fractions listed in Table 6-1.

Table 6-1. TPH Compositional Assumptions in Soil

Petroleum Product	C11-C22 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics
Diesel #2/ new crankcase oil	60%	40%	0%
#3 and #6 Fuel Oil	70%	30%	0%
Kerosene and jet fuel	30%	70%	0%
Mineral oil dielectric fluid	20%	40%	40%
Unknown oil[a]	100%	0%	0%
Waste Oil[b]	0%	0%	100%

[a] Sites with oil from unknown sources must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Tables 6-2 and 6-3 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED SSLs summarized in Table A-1.

[b] Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Tables 6-2 and 6-3 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED SSLs summarized in Table A-1.

A TPH screening guideline was calculated for each of the types of petroleum product based on the assumed composition from Table 6-1 for petroleum products and the direct soil standards incorporating ceiling concentrations given in the MADEP VPH/EPH (December 2009) Excel spreadsheet for each of the carbon fractions (MADEP, 2009). Groundwater concentrations are based on the weighted sum of the noncarcinogenic toxicity of the petroleum fractions.

Method 1 from the MADEP VPH/EPH document and spreadsheet (MADEP, 2009) was applied, which represents generic cleanup standards for soil and groundwater. Method 1 applies if contamination exists in only soil and groundwater. The MADEP VPH/EPH further divides groundwater into standards. Standard GW-1 applies when groundwater may be used for drinking water purposes. GW-1 standards are based upon ingestion and use of groundwater as a potable water supply. The TPH screening guidelines for sites with potable groundwater are presented in Table 6-2. It is noted that the below guidelines are not necessarily risk-based values but may reflect a ceiling level.

Table 6-2. TPH Screening Guidelines for Potable Groundwater (GW-1)

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	Residential Direct Exposure (mg/kg)	Industrial Direct Exposure (mg/kg)	
Diesel #2/crankcase oil	1000	1800	0.4
#3 and #6 Fuel Oil	1000	1600	0.35
Kerosene and jet fuel	1000	2400	0.55
Mineral oil dielectric	1800	3400	5.92

fluid			
Unknown oil[a]	1000	1000	0.2
Waste Oil[b]	3000	5000	See individual contaminants in Appendix A
Gasoline	Not applicable	Not applicable	See individual contaminants in Appendix A

[a] Sites with oil from unknown sources must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 6-2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

[b] Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 6-2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

The second standard is GW-2 (MADEP, 2009), which is applicable for sites where the depth to groundwater is less than 15 feet from the ground surface and within 30 feet of an occupied structure. The structure may be either residential or industrial. GW-2 standards are based upon "inhalation exposures that could occur to occupants of the building impacted by volatile compounds, which partition from the groundwater" (MADEP, 2001). The GW-2 screening guidelines ONLY apply for the evaluation of inhalation exposures. If potential ingestion or contact with contaminated soil and/or groundwater could occur, then the screening guidelines provided in Table 6-2 should be applied. Table 6-3 lists the TPH screening guidelines for the inhalation scenario (MADEP, 2009). It is noted that the below guidelines are not necessarily risk-based values but may reflect a ceiling level.

Table 6-3. TPH Screening Guidelines – Vapor Migration and Inhalation of Groundwater (GW-2)

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	**Residential Direct Exposure (mg/kg)**	**Industrial Direct Exposure (mg/kg)**	
Diesel #2/crankcase oil	1000	3000	32
#3 and #6 Fuel Oil	1000	3000	36.5
Kerosene and jet fuel	1000	3000	18.5
Mineral oil dielectric fluid	1800	3800	12
Unknown oil[a]	1000	3000	50
Waste Oil[b]	3000	5000	See individual contaminants in Appendix A
Gasoline	Not applicable	Not applicable	See individual contaminants in Appendix A

[a] Sites with oil from unknown sources must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 6-3 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED SSLs summarized in Table A-1.

[b] Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste

APPENDIX B

Applicable Standards

40 CFR 141.62 Maximum Contaminant Levels (MCLs)

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of April 4, 2013

Title 40: Protection of Environment
PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS

Subpart G—National Primary Drinking Water Regulations: Maximum Contaminant Levels and Maximum Residual Disinfectant Levels

Contents

§ 141.60 Effective dates.
§ 141.61 Maximum contaminant levels for organic contaminants.
§ 141.62 Maximum contaminant levels for inorganic contaminants.
§ 141.63 Maximum contaminant levels (MCLs) for microbiological contaminants.
§ 141.64 Maximum contaminant levels for disinfection byproducts.
§ 141.65 Maximum residual disinfectant levels.
§ 141.66 Maximum contaminant levels for radionuclides.

§ 141.60 Effective dates.

(a) The effective dates for § 141.61 are as follows:

(1) The effective date for paragraphs (a)(1) through (a)(8) of § 141.61 is January 9, 1989.

(2) The effective date for paragraphs (a)(9) through (a)(18) and (c)(1) through (c)(18) of § 141.61 is July 30, 1992.

(3) The effective date for paragraphs (a)(19) through (a)(21), (c)(19) through (c)(25), and (c)(27) through (c)(33) of § 141.61 is January 17, 1994. The effective date of § 141.61(c)(26) is August 17, 1992.

(b) The effective dates for § 141.62 are as follows:

(1) The effective date of paragraph (b)(1) of § 141.62 is October 2, 1987.

(2) The effective date for paragraphs (b)(2) and (b)(4) through (b)(10) of § 141.62 is July 30, 1992.

(3) The effective date for paragraphs (b)(11) through (b)(15) of § 141.62 is January 17, 1994.

(4) The effective date for § 141.62(b)(16) is January 23, 2006.

[56 FR 3593, Jan. 30, 1991, as amended at 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994; 66FR 7063, Jan. 22, 2001]

§ 141.61 Maximum contaminant levels for organic contaminants.

(a) The following maximum contaminant levels for organic contaminants apply to community and non-transient, non-community water systems.

CAS No.	Contaminant	MCL (mg/l)
(1) 75-01-4	Vinyl chloride	0.002

(2) 71-43-2	Benzene	0.005
(3) 56-23-5	Carbon tetrachloride	0.005
(4) 107-06-2	1,2-Dichloroethane	0.005
(5) 79-01-6	Trichloroethylene	0.005
(6) 106-46-7	para-Dichlorobenzene	0.075
(7) 75-35-4	1,1-Dichloroethylene	0.007
(8) 71-55-6	1,1,1-Trichloroethane	0.2
(9) 156-59-2	cis-1,2-Dichloroethylene	0.07
(10) 78-87-5	1,2-Dichloropropane	0.005
(11) 100-41-4	Ethylbenzene	0.7
(12) 108-90-7	Monochlorobenzene	0.1
(13) 95-50-1	o-Dichlorobenzene	0.6
(14) 100-42-5	Styrene	0.1
(15) 127-18-4	Tetrachloroethylene	0.005
(16) 108-88-3	Toluene	1
(17) 156-60-5	trans-1,2-Dichloroethylene	0.1
(18) 1330-20-7	Xylenes (total)	10
(19) 75-09-2	Dichloromethane	0.005
(20) 120-82-1	1,2,4-Trichloro- benzene	.07
(21) 79-00-5	1,1,2-Trichloro- ethane	.005

(b) The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the Table below granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX) as the best technology treatment technique, or other means available for achieving compliance with the maximum contaminant level for organic contaminants identified in paragraphs (a) and (c) of this section:

BAT FOR ORGANIC CONTAMINANTS LISTED IN § 141.61 (A) AND (C)

CAS No.	Contaminant	GAC	PTA	OX
15972-60-8	Alachlor	X		
116-06-3	Aldicarb	X		
1646-88-4	Aldicarb sulfone	X		
1646-87-3	Aldicarb sulfoxide	X		
1912-24-9	Atrazine	X		
71-43-2	Benzene	X	X	
50-32-8	Benzo[a]pyrene	X		
1563-66-2	Carbofuran	X		
56-23-5	Carbon tetrachloride	X	X	
57-74-9	Chlordane	X		
75-99-0	Dalapon	X		
94-75-7	2,4-D	X		
103-23-1	Di (2-ethylhexyl) adipate	X	X	
117-81-7	Di (2-ethylhexyl) phthalate	X		
96-12-8	Dibromochloropropane (DBCP)	X	X	
95-50-1	o-Dichlorobenzene	X	X	
106-46-7	para-Dichlorobenzene	X	X	
107-06-2	1,2-Dichloroethane	X	X	
75-35-4	1,1-Dichloroethylene	X	X	
156-59-2	cis-1,2-Dichloroethylene	X	X	

156-60-5	trans-1,2-Dichloroethylene	X	X	
75-09-2	Dichloromethane		X	
78-87-5	1,2-Dichloropropane	X	X	
88-85-7	Dinoseb	X		
85-00-7	Diquat	X		
145-73-3	Endothall	X		
72-20-8	Endrin	X		
100-41-4	Ethylbenzene	X	X	
106-93-4	Ethylene Dibromide (EDB)	X	X	
1071-83-6	Gylphosate			X
76-44-8	Heptachlor	X		
1024-57-3	Heptachlor epoxide	X		
118-74-1	Hexachlorobenzene	X		
77-47-3	Hexachlorocyclopentadiene	X	X	
58-89-9	Lindane	X		
72-43-5	Methoxychlor	X		
108-90-7	Monochlorobenzene	X	X	
23135-22-0	Oxamyl (Vydate)	X		
87-86-5	Pentachlorophenol	X		
1918-02-1	Picloram	X		
1336-36-3	Polychlorinated biphenyls (PCB)	X		
122-34-9	Simazine	X		
100-42-5	Styrene	X	X	
1746-01-6	2,3,7,8-TCDD (Dioxin)	X		
127-18-4	Tetrachloroethylene	X	X	
108-88-3	Toluene	X	X	
8001-35-2	Toxaphene	X		
93-72-1	2,4,5-TP (Silvex)	X		
120-82-1	1,2,4-Trichlorobenzene	X	X	
71-55-6	1,1,1-Trichloroethane	X	X	
79-00-5	1,1,2-Trichloroethane	X	X	
79-01-6	Trichloroethylene	X	X	
75-01-4	Vinyl chloride		X	
1330-20-7	Xylene	X	X	

(c) The following maximum contaminant levels for synthetic organic contaminants apply to community water systems and non-transient, non-community water systems:

CAS No.	Contaminant	MCL (mg/l)
(1) 15972-60-8	Alachlor	0.002
(2) 116-06-3	Aldicarb	0.003
(3) 1646-87-3	Aldicarb sulfoxide	0.004
(4) 1646-87-4	Aldicarb sulfone	0.002
(5) 1912-24-9	Atrazine	0.003
(6) 1563-66-2	Carbofuran	0.04
(7) 57-74-9	Chlordane	0.002
(8) 96-12-8	Dibromochloropropane	0.0002
(9) 94-75-7	2,4-D	0.07
(10) 106-93-4	Ethylene dibromide	0.00005

(11) 76-44-8	Heptachlor	0.0004
(12) 1024-57-3	Heptachlor epoxide	0.0002
(13) 58-89-9	Lindane	0.0002
(14) 72-43-5	Methoxychlor	0.04
(15) 1336-36-3	Polychlorinated biphenyls	0.0005
(16) 87-86-5	Pentachlorophenol	0.001
(17) 8001-35-2	Toxaphene	0.003
(18) 93-72-1	2,4,5-TP	0.05
(19) 50-32-8	Benzo[a]pyrene	0.0002
(20) 75-99-0	Dalapon	0.2
(21) 103-23-1	Di(2-ethylhexyl) adipate	0.4
(22) 117-81-7	Di(2-ethylhexyl) phthalate	0.006
(23) 88-85-7	Dinoseb	0.007
(24) 85-00-7	Diquat	0.02
(25) 145-73-3	Endothall	0.1
(26) 72-20-8	Endrin	0.002
(27) 1071-53-6	Glyphosate	0.7
(28) 118-74-1	Hexacholorbenzene	0.001
(29) 77-47-4	Hexachlorocyclopentadiene	0.05
(30) 23135-22-0	Oxamyl (Vydate)	0.2
(31) 1918-02-1	Picloram	0.5
(32) 122-34-9	Simazine	0.004
(33) 1746-01-6	2,3,7,8-TCDD (Dioxin)	3×10^{-8}

[56 FR 3593, Jan. 30, 1991, as amended at 56 FR 30280, July 1, 1991; 57 FR 31846, July 17, 1992; 59 FR 34324, July 1, 1994]

§ 141.62 Maximum contaminant levels for inorganic contaminants.

(a) [Reserved]

(b) The maximum contaminant levels for inorganic contaminants specified in paragraphs (b) (2)-(6), (b)(10), and (b) (11)-(16) of this section apply to community water systems and non-transient, non-community water systems. The maximum contaminant level specified in paragraph (b)(1) of this section only applies to community water systems. The maximum contaminant levels specified in (b)(7), (b)(8), and (b)(9) of this section apply to community water systems; non-transient, non-community water systems; and transient non-community water systems.

Contaminant	MCL (mg/l)
(1) Fluoride	4.0
(2) Asbestos	7 Million Fibers/liter (longer than 10 μm).
(3) Barium	2
(4) Cadmium	0.005
(5) Chromium	0.1
(6) Mercury	0.002
(7) Nitrate	10 (as Nitrogen)
(8) Nitrite	1 (as Nitrogen)
(9) Total Nitrate and Nitrite	10 (as Nitrogen)
(10) Selenium	0.05
(11) Antimony	0.006
(12) Beryllium	0.004

(13) Cyanide (as free Cyanide)	0.2
(14) [Reserved]	
(15) Thallium	0.002
(16) Arsenic	0.010

(c) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment technique, or other means available for achieving compliance with the maximum contaminant levels for inorganic contaminants identified in paragraph (b) of this section, except fluoride:

BAT FOR INORGANIC COMPOUNDS LISTED IN SECTION 141.62(B)

Chemical Name	BAT(s)
Antimony	2,7
Arsenic [4]	1, 2, 5, 6, 7, 9, 12 [5]
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6 [2],7
Cyanide	5,7,13
Mercury	2 [1],4,6 [1],7 [1]
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2 [3],6,7,9
Thallium	1,5

[1] BAT only if influent Hg concentrations ≤10µg/1.

[2] BAT for Chromium III only.

[3] BAT for Selenium IV only.

[4] BATs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.

[5] To obtain high removals, iron to arsenic ratio must be at least 20:1.

Key to BATS in Table

1 = Activated Alumina

2 = Coagulation/Filtration (not BAT for systems < 500 service connections)

3 = Direct and Diatomite Filtration

4 = Granular Activated Carbon

5 = Ion Exchange

6 = Lime Softening (not BAT for systems <500 service connections)

7 = Reverse Osmosis

8 = Corrosion Control

9 = Electrodialysis

10 = Chlorine

11 = Ultraviolet

12 = Oxidation/Filtration

13 = Alkaline Chlorination (pH ≥8.5)

(d) The Administrator, pursuant to section 1412 of the Act, hereby identifies in the following table the affordable technology, treatment technique, or other means available to systems serving 10,000 persons or fewer for achieving compliance with the maximum contaminant level for arsenic:

SMALL SYSTEM COMPLIANCE TECHNOLOGIES (SSCTS) [1] FOR ARSENIC [2]

Small system compliance technology	Affordable for listed small system categories [3]
Activated Alumina (centralized)	All size categories.
Activated Alumina (Point-of-Use) [4]	All size categories.
Coagulation/Filtration [5]	501-3,300, 3,301-10,000.
Coagulation-assisted Microfiltration	501-3,300, 3,301-10,000.
Electrodialysis reversal [6]	501-3,300, 3,301-10,000.
Enhanced coagulation/filtration	All size categories
Enhanced lime softening (pH> 10.5)	All size categories.
Ion Exchange	All size categories.
Lime Softening [5]	501-3,300, 3,301-10,000.
Oxidation/Filtration [7]	All size categories.
Reverse Osmosis (centralized) [6]	501-3,300, 3,301-10,000.
Reverse Osmosis (Point-of-Use) [4]	All size categories.

[1] Section 1412(b)(4)(E)(ii) of SDWA specifies that SSCTs must be affordable and technically feasible for small systems.

[2] SSCTs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.

[3] The Act (ibid.) specifies three categories of small systems: (i) those serving 25 or more, but fewer than 501, (ii) those serving more than 500, but fewer than 3,301, and (iii) those serving more than 3,300, but fewer than 10,001.

[4] When POU or POE devices are used for compliance, programs to ensure proper long-term operation, maintenance, and monitoring must be provided by the water system to ensure adequate performance.

[5] Unlikely to be installed solely for arsenic removal. May require pH adjustment to optimal range if high removals are needed.

[6] Technologies reject a large volume of water—may not be appropriate for areas where water quantity may be an issue.

[7] To obtain high removals, iron to arsenic ratio must be at least 20:1.

[56 FR 3594, Jan. 30, 1991, as amended at 56 FR 30280, July 1, 1991; 57 FR 31847, July 17, 1992; 59 FR 34325, July 1, 1994; 60 FR 33932, June 29, 1995; 66 FR 7063, Jan. 22, 2001; 68 FR 14506, Mar. 25, 2003; 69 FR 38855, June 29, 2004]

§ 141.63 Maximum contaminant levels (MCLs) for microbiological contaminants.

Link to an amendment published at 78 FR 10347, February 13, 2013.

(a) The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.

(1) For a system which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the system is in compliance with the MCL for total coliforms.

(2) For a system which collects fewer than 40 samples/month, if no more than one sample collected during a month is total coliform-positive, the system is in compliance with the MCL for total coliforms.

(b) Any fecal coliform-positive repeat sample or *E. coli* -positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or *E. coli* -positive routine sample constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in subpart Q, this is a violation that may pose an acute risk to health.

(c) A public water system must determine compliance with the MCL for total coliforms in paragraphs (a) and (b) of this section for each month in which it is required to monitor for total coliforms.

(d) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant level for total coliforms in paragraphs (a) and (b) of this section:

(1) Protection of wells from contamination by coliforms by appropriate placement and construction;

(2) Maintenance of a disinfectant residual throughout the distribution system;

(3) Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, and continual maintenance of positive water pressure in all parts of the distribution system;

(4) Filtration and/or disinfection of surface water, as described in subpart H, or disinfection of ground water using strong oxidants such as chlorine, chlorine dioxide, or ozone; and

(5) For systems using ground water, compliance with the requirements of an EPA-approved State Wellhead Protection Program developed and implemented under section 1428 of the SDWA.

[54 FR 27566, June 29, 1989; 55 FR 25064, June 19, 1990, as amended at 65 FR 26022, May 4, 2000]

§ 141.64 Maximum contaminant levels for disinfection byproducts.

(a) *Bromate and chlorite.* The maximum contaminant levels (MCLs) for bromate and chlorite are as follows:

Disinfection byproduct	MCL (mg/L)
Bromate	0.010
Chlorite	1.0

(1) *Compliance dates for CWSs and NTNCWSs.* Subpart H systems serving 10,000 or more persons must comply with this paragraph (a) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (a) beginning January 1, 2004.

(2) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for bromate and chlorite identified in this paragraph (a):

Disinfection byproduct	Best available technology
Bromate	Control of ozone treatment process to reduce production of bromate
Chlorite	Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels

(b) TTHM and HAA5. (1) Subpart L—RAA compliance. (i) Compliance dates. Subpart H systems serving 10,000 or more persons must comply with this paragraph (b)(1) beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this paragraph (b)(1) beginning January 1, 2004. All systems must comply with these MCLs until the date specified for subpart V compliance in § 141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(1):

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5)	Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant

(2) Subpart V—LRAA compliance. (i) Compliance dates. The subpart V MCLs for TTHM and HAA5 must be complied with as a locational running annual average at each monitoring location beginning the date specified for subpart V compliance in § 141.620(c).

Disinfection byproduct	MCL (mg/L)
Total trihalomethanes (TTHM)	0.080
Haloacetic acids (five) (HAA5)	0.060

(ii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for all systems that disinfect their source water:

Disinfection byproduct	Best available technology
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5)	Enhanced coagulation or enhanced softening, plus GAC10; or nanofiltration with a molecular weight cutoff ≤1000 Daltons; or GAC20

(iii) The Administrator, pursuant to section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum contaminant levels for TTHM and HAA5 identified in this paragraph (b)(2) for consecutive systems and applies only to the disinfected water that consecutive systems buy or otherwise receive:

Disinfection byproduct	Best available technology

Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5)	Systems serving ≥10,000: Improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance
	Systems serving <10,000: Improved distribution system and storage tank management to reduce residence time

[71 FR 478, Jan. 4, 2006]

§ 141.65 Maximum residual disinfectant levels.

(a) Maximum residual disinfectant levels (MRDLs) are as follows:

Disinfectant residual	MRDL (mg/L)
Chlorine	4.0 (as Cl_2).
Chloramines	4.0 (as Cl_2).
Chlorine dioxide	0.8 (as ClO_2).

(b) *Compliance dates* —(1) *CWSs and NTNCWSs.* Subpart H systems serving 10,000 or more persons must comply with this section beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water must comply with this subpart beginning January 1, 2004.

(2) Transient NCWSs. Subpart H systems serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Subpart H systems serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant and systems using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.

(c) The Administrator, pursuant to Section 1412 of the Act, hereby identifies the following as the best technology, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels identified in paragraph (a) of this section: control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.

[63 FR 69465, Dec. 16, 1998, as amended at 66 FR 3776, Jan. 16, 2001]

§ 141.66 Maximum contaminant levels for radionuclides.

(a) [Reserved]

(b) *MCL for combined radium-226 and -228.* The maximum contaminant level for combined radium-226 and radium-228 is 5 pCi/L. The combined radium-226 and radium-228 value is determined by the addition of the results of the analysis for radium-226 and the analysis for radium-228.

(c) *MCL for gross alpha particle activity (excluding radon and uranium).* The maximum contaminant level for gross alpha particle activity (including radium-226 but excluding radon and uranium) is 15 pCi/L.

(d) *MCL for beta particle and photon radioactivity.* (1) The average annual concentration of beta particle and photon radioactivity from man-made radionuclides in drinking water must not produce an annual dose equivalent to the total body or any internal organ greater than 4 millirem/year (mrem/year).

(2) Except for the radionuclides listed in table A, the concentration of man-made radionuclides causing 4 mrem total body or organ dose equivalents must be calculated on the basis of 2 liter per day drinking water intake using the 168 hour data list in "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NBS (National Bureau of Standards) Handbook 69 as amended August 1963, U.S.

Department of Commerce. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this document are available from the National Technical Information Service, NTIS ADA 280 282, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. The toll-free number is 800-553-6847. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW., Washington, DC 20460; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.* If two or more radionuclides are present, the sum of their annual dose equivalent to the total body or to any organ shall not exceed 4 mrem/year.

TABLE A—AVERAGE ANNUAL CONCENTRATIONS ASSUMED TO PRODUCE: A TOTAL BODY OR ORGAN DOSE OF 4 MREM/YR

1. Radionuclide	Critical organ	pCi per liter
2. Tritium	Total body	20,000
3. Strontium-90	Bone Marrow	8

(e) *MCL for uranium.* The maximum contaminant level for uranium is 30 µg/L.

(f) *Compliance dates.* (1) Compliance dates for combined radium-226 and -228, gross alpha particle activity, gross beta particle and photon radioactivity, and uranium: Community water systems must comply with the MCLs listed in paragraphs (b), (c), (d), and (e) of this section beginning December 8, 2003 and compliance shall be determined in accordance with the requirements of §§ 141.25 and 141.26. Compliance with reporting requirements for the radionuclides under appendix A to subpart O and appendices A and B to subpart Q is required on December 8, 2003.

(2) [Reserved]

(g) *Best available technologies (BATs) for radionuclides.* The Administrator, pursuant to section 1412 of the Act, hereby identifies as indicated in the following table the best technology available for achieving compliance with the maximum contaminant levels for combined radium-226 and -228, uranium, gross alpha particle activity, and beta particle and photon radioactivity.

TABLE B—BAT FOR COMBINED RADIUM-226 AND RADIUM-228, URANIUM, GROSS ALPHA PARTICLE ACTIVITY, AND BETA PARTICLE AND PHOTON RADIOACTIVITY

Contaminant	BAT
1. Combined radium-226 and radium-228	Ion exchange, reverse osmosis, lime softening.
2. Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
3. Gross alpha particle activity (excluding Radon and Uranium)	Reverse osmosis.
4. Beta particle and photon radioactivity	Ion exchange, reverse osmosis.

(h) *Small systems compliance technologies list for radionuclides.*

TABLE C—LIST OF SMALL SYSTEMS COMPLIANCE TECHNOLOGIES FOR RADIONUCLIDES AND LIMITATIONS TO USE

Unit technologies	Limitations (see footnotes)	Operator skill level required [1]	Raw water quality range and considerations. [1]
1. Ion exchange (IE)	([a])	Intermediate	All ground waters.
2. Point of use (POU [2]) IE	([b])	Basic	All ground waters.

3. Reverse osmosis (RO)	([c])	Advanced	Surface waters usually require pre-filtration.
4. POU [2]RO	([b])	Basic	Surface waters usually require pre-filtration.
5. Lime softening	([d])	Advanced	All waters.
6. Green sand filtration	([e])	Basic.	
7. Co-precipitation with Barium sulfate	([f])	Intermediate to Advanced	Ground waters with suitable water quality.
8. Electrodialysis/electrodialysis reversal		Basic to Intermediate	All ground waters.
9. Pre-formed hydrous Manganese oxide filtration	([g])	Intermediate	All ground waters.
10. Activated alumina	([a]), ([h])	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency.
11. Enhanced coagulation/filtration	([i])	Advanced	Can treat a wide range of water qualities.

[1] National Research Council (NRC). Safe Water from Every Tap: Improving Water Service to Small Communities. National Academy Press. Washington, D.C. 1997.

[2] A POU, or "point-of-use" technology is a treatment device installed at a single tap used for the purpose of reducing contaminants in drinking water at that one tap. POU devices are typically installed at the kitchen tap. See the April 21, 2000 NODA for more details.

Limitations Footnotes: Technologies for Radionuclides:

[a] The regeneration solution contains high concentrations of the contaminant ions. Disposal options should be carefully considered before choosing this technology.

[b] When POU devices are used for compliance, programs for long-term operation, maintenance, and monitoring must be provided by water utility to ensure proper performance.

[c] Reject water disposal options should be carefully considered before choosing this technology. See other RO limitations described in the SWTR Compliance Technologies Table.

[d] The combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small surface water systems.

[e] Removal efficiencies can vary depending on water quality.

[f] This technology may be very limited in application to small systems. Since the process requires static mixing, detention basins, and filtration, it is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.

[g] This technology is most applicable to small systems that already have filtration in place.

[h] Handling of chemicals required during regeneration and pH adjustment may be too difficult for small systems without an adequately trained operator.

[i] Assumes modification to a coagulation/filtration process already in place.

TABLE D—COMPLIANCE TECHNOLOGIES BY SYSTEM SIZE CATEGORY FOR RADIONUCLIDE NPDWR'S

Contaminant	Compliance technologies [1] for system size categories (population served)		
	25-500	501-3,300	3,300-10,000
1. Combined radium-226 and radium-228	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7. 8, 9.
2. Gross alpha particle activity	3, 4	3, 4	3, 4.
3. Beta particle activity and photon activity	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4.
4. Uranium	1, 2, 4, 10, 11	1, 2, 3, 4, 5, 10, 11	1, 2, 3, 4, 5, 10, 11.

Note:[1] Numbers correspond to those technologies found listed in the table C of 141.66(h).

[65 FR 76748, Dec. 7, 2000]

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APPENDIX B

Applicable Standards

EPA Regional Screening Levels (RSLs)

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO $(mg/kg\text{-}day)^{-1}$	key	IUR $(ug/m^3)^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	voc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
1.8E-02	C	5.1E-06	C	1.5E-01	I					1	0.1		ALAR	1596-84-5	2.7E+01	c	9.6E+01	c	4.8E-01	c	2.4E+00	c	3.7E+00	c		8.2E-04	
8.7E-03	I			4.0E-03	I					1	0.1		Acephate	30560-19-1	5.6E+01	c**	2.0E+02	c*					7.7E+00	c**		1.7E-03	
		2.2E-06	I			9.0E-03	I	V		1		1.1E+05	Acetaldehyde	75-07-0	1.0E+01	c**	5.2E+01	c**	1.1E+00	c**	5.6E+00	c**	2.2E+00	c**		4.5E-04	
				2.0E-02	I					1	0.1		Acetochlor	34256-82-1	1.2E+03	n	1.2E+04	n					2.7E+02	n		2.2E-01	
				9.0E-01	I	3.1E+01	A	V		1		1.1E+05	Acetone	67-64-1	6.1E+04	n	6.3E+05	nms	3.2E+04	n	1.4E+05	n	1.2E+04	n		2.4E+00	
						2.0E-03	X	V		1		1.1E+05	Acetone Cyanohydrin	75-86-5	5.3E+01	n	2.2E+02	n	2.1E+00	n	8.8E+00	n	4.2E+00	n		8.4E-04	
						6.0E-02	I	V		1		1.3E+05	Acetonitrile	75-05-8	8.7E+02	n	3.7E+03	n	6.3E+01	n	2.6E+02	n	1.3E+02	n		2.6E-02	
				1.0E-01	I			V		1		2.5E+03	Acetophenone	98-86-2	7.8E+03	ns	1.0E+05	nms					1.5E+03	n		4.5E-01	
3.8E+00	C	1.3E-03	C							1	0.1		Acetylaminofluorene, 2-	53-96-3	1.3E-01	c	4.5E-01	c	1.9E-03	c	9.4E-03	c	1.3E-02	c		6.2E-05	
				5.0E-04	I	2.0E-05	I	V		1		2.3E+04	Acrolein	107-02-8	1.5E-01	n	6.5E-01	n	2.1E-02	n	8.8E-02	n	4.1E-02	n		8.4E-06	
5.0E-01	I	1.0E-04	I	2.0E-03	I	6.0E-03	I		M	1	0.1		Acrylamide	79-06-1	2.3E-01	c	3.4E+00	c	9.6E-03	c	1.2E-01	c	4.3E-02	c		9.1E-06	
				5.0E-01	I	1.0E-03	I			1	0.1		Acrylic Acid	79-10-7	3.0E+04	n	2.9E+05	nm	1.0E+00	n	4.4E+00	n	7.7E+03	n		1.6E+00	
5.4E-01	I	6.8E-05	I	4.0E-02	A	2.0E-03	I	V		1		1.1E+04	Acrylonitrile	107-13-1	2.4E-01	c*	1.2E+00	c*	3.6E-02	c*	1.8E-01	c*	4.5E-02	c*		9.8E-06	
						6.0E-03	P			1	0.1		Adiponitrile	111-69-3	8.5E+06	nm	3.6E+07	nm	6.3E+00	n	2.6E+01	n						
5.6E-02	C			1.0E-02	I					1	0.1		Alachlor	15972-60-8	8.7E+00	c*	3.1E+01	c					9.1E-01	c	2.0E+00	7.5E-04	1.6E-03
				1.0E-03	I					1	0.1		Aldicarb	116-06-3	6.1E+01	n	6.2E+02	n					1.5E+01	n	3.0E+00(F)	3.8E-03	7.5E-04
				1.0E-03	I					1	0.1		Aldicarb Sulfone	1646-88-4	6.1E+01	n	6.2E+02	n					1.6E+01	n	2.0E+00(F)	3.4E-03	4.4E-04
										1	0.1		Aldicarb sulfoxide	1646-87-3											4.0E+00(F)		8.8E-04
1.7E+01	I	4.9E-03	I	3.0E-05	I					1	0.1		Aldrin	309-00-2	2.9E-02	c*	1.0E-01	c	5.0E-04	c	2.5E-03	c	4.0E-03	c		6.5E-04	
				2.5E-01	I					1	0.1		Ally	74223-64-6	1.5E+04	n	1.5E+05	nm					3.8E+03	n		1.5E+00	
				5.0E-03	I	1.0E-04	X			1	0.1		Allyl Alcohol	107-18-6	3.0E+02	n	3.1E+03	n	1.0E-01	n	4.4E-01	n	7.8E+01	n		1.6E-02	
2.1E-02	C	6.0E-06	C			1.0E-03	I	V		1		1.4E+03	Allyl Chloride	107-05-1	6.8E-01	c**	3.4E+00	c**	4.1E-01	c**	2.0E+00	c**	6.3E-01	c**		2.0E-04	
				1.0E+00	P	5.0E-03	P			1			Aluminum	7429-90-5	7.7E+04	n	9.9E+05	nm	5.2E+00	n	2.2E+01	n	1.6E+04	n		2.3E+04	
				4.0E-04	I					1			Aluminum Phosphide	20859-73-8	3.1E+01	n	4.1E+02	n					6.2E+00	n			
				3.0E-04	I					1	0.1		Amdro	67485-29-4	1.8E+01	n	1.8E+02	n					4.6E+00	n		1.7E+03	
				9.0E-03	I					1	0.1		Ametryn	834-12-8	5.5E+02	n	5.5E+03	n					1.2E+02	n		1.2E-01	
2.1E+01	C	6.0E-03	C							1	0.1		Aminobiphenyl, 4-	92-67-1	2.3E-02	c	8.2E-02	c	4.1E-04	c	2.0E-03	c	2.6E-03	c		1.3E-05	
				8.0E-02	P					1	0.1		Aminophenol, m-	591-27-5	4.9E+03	n	4.9E+04	n					1.2E+03	n		4.7E-01	
				2.0E-02	P					1	0.1		Aminophenol, p-	123-30-8	1.2E+03	n	1.2E+04	n					3.1E+02	n		1.2E-01	
				2.5E-03	I					1	0.1		Amitraz	33089-61-1	1.5E+02	n	1.5E+03	n					5.9E+00	n		3.0E+00	
						1.0E-01	I			1			Ammonia	7664-41-7					1.0E+02	n	4.4E+02	n						
				2.0E-01	I					1			Ammonium Sulfamate	7773-06-0	1.6E+04	n	2.0E+05	nm					3.1E+03	n			
5.7E-03	I	1.6E-06	C	7.0E-03	P	1.0E-03	I			1	0.1		Aniline	62-53-3	8.5E+01	c**	3.0E+02	c*	1.0E+00	n	4.4E+00	n	1.2E+01	c**		3.9E-03	
4.0E-02	P			2.0E-03	X					1	0.1		Anthraquinone, 9,10-	84-65-1	1.2E+01	c*	4.3E+01	c*					1.2E+00	c*		1.2E-02	
				4.0E-04	I					0.15			Antimony (metallic)	7440-36-0	3.1E+01	n	4.1E+02	n					6.0E+00	n	6.0E+00	2.7E-01	2.7E-01
				5.0E-04	H					0.15			Antimony Pentoxide	1314-60-9	3.9E+01	n	5.1E+02	n					7.5E+00	n			
				9.0E-04	H					0.15			Antimony Potassium Tartrate	11071-15-1	7.0E+01	n	9.2E+02	n					1.3E+01	n			
				4.0E-04	H					0.15			Antimony Tetroxide	1332-81-6	3.1E+01	n	4.1E+02	n					6.0E+00	n			
						2.0E-04	I			0.15			Antimony Trioxide	1309-64-4	2.8E+05	nm	1.2E+06	nm	2.1E-01	n	8.8E-01	n					
				1.3E-02	I					1	0.1		Apollo	74115-24-5	7.9E+02	n	8.0E+03	n					1.8E+02	n		1.1E+01	
2.5E-02	I	7.1E-06	I	5.0E-02	H					1	0.1		Aramite	140-57-8	1.9E+01	c	6.9E+01	c	3.4E-01	c	1.7E+00	c	1.1E+00	c		1.3E-02	
1.5E+00	I	4.3E-03	I	3.0E-04	I	1.5E-05	C			1	0.03		Arsenic, Inorganic	7440-38-2	3.9E-01	c*	1.6E+00	c	5.7E-04	c*	2.9E-03	c*	4.5E-02	c	1.0E+01	1.3E-03	2.9E-01
				3.5E-06	C	5.0E-05	I			1			Arsine	7784-42-1	2.7E-01	n	3.6E+00	n	5.2E-02	n	2.2E-01	n	5.4E-02	n			
				9.0E-03	I					1	0.1		Assure	76578-14-8	5.5E+02	n	5.5E+03	n					9.3E+01	n		1.4E+00	
				5.0E-02	I					1	0.1		Asulam	3337-71-1	3.1E+03	n	3.1E+04	n					7.8E+02	n		2.0E-01	
2.3E-01	C			3.5E-02	I					1	0.1		Atrazine	1912-24-9	2.1E+00	c	7.5E+00	c					2.6E-01	c	3.0E+00	1.7E-04	1.9E-03
8.8E-01	C	2.5E-04	C							1	0.1		Auramine	492-80-8	5.5E-01	c	2.0E+00	c	9.7E-03	c	4.9E-02	c	5.7E-02	c		5.2E-04	
				4.0E-04	I					1	0.1		Avermectin B1	65195-55-3	2.4E+01	n	2.5E+02	n					6.3E+00	n		1.1E+01	
1.1E-01	I	3.1E-05	I					V		1			Azobenzene	103-33-3	5.1E+00	c	2.3E+01	c	7.8E-02	c	4.0E-01	c	1.0E-01	c		8.0E-04	
				2.0E-01	I	5.0E-04	H			0.07			Barium	7440-39-3	1.5E+04	n	1.9E+05	nm	5.2E-01	n	2.2E+00	n	2.9E+03	n	2.0E+03	1.2E+02	8.2E+01
				4.0E-03	I					1	0.1		Baygon	114-26-1	2.4E+02	n	2.5E+03	n					6.1E+01	n		2.0E-02	
				3.0E-02	I					1	0.1		Bayleton	43121-43-3	1.8E+03	n	1.8E+04	n					4.3E+02	n		3.4E-01	
				2.5E-02	I					1	0.1		Baythroid	68359-37-5	1.5E+03	n	1.5E+04	n					8.7E+01	n		2.3E+01	
				3.0E-01	I					1	0.1		Benefin	1861-40-1	1.8E+04	n	1.8E+05	nm					1.2E+03	n		4.1E+01	
				5.0E-02	I					1	0.1		Benomyl	17804-35-2	3.1E+03	n	3.1E+04	n					7.5E+02	n		6.6E-01	
				3.0E-02	I					1	0.1		Bentazon	25057-89-0	1.8E+03	n	1.8E+04	n					4.4E+02	n		9.6E-02	
				1.0E-01	I			V		1		1.2E+03	Benzaldehyde	100-52-7	7.8E+03	ns	1.0E+05	nms					1.5E+03	n		3.3E-01	
5.5E-02	I	7.8E-06	I	4.0E-03	I	3.0E-02	I	V		1		1.8E+03	Benzene	71-43-2	1.1E+00	c*	5.4E+00	c*	3.1E-01	c	1.6E+00	c*	3.9E-01	c*	5.0E+00	2.0E-04	2.6E-03
				2.0E-04	X					1	0.1		Benzenediamine-2-methyl sulfate, 1,4-	6369-59-1	1.2E+01	n	1.2E+02	n					3.1E+00	n		8.7E-04	
				1.0E-03	P			V		1		1.3E+03	Benzenethiol	108-98-5	7.8E+01	n	1.0E+03	n					1.3E+01	n		8.6E-03	
2.3E+02	I	6.7E-02	I	3.0E-03	I				M	1	0.1		Benzidine	92-87-5	5.0E-04	c	7.5E-03	c	1.4E-05	c	1.8E-04	c	9.2E-05	c		2.4E-07	
				4.0E+00	I					1	0.1		Benzoic Acid	65-85-0	2.4E+05	nm	2.5E+06	nm					5.8E+04	n		1.4E+01	
1.3E+01	I							V		1		3.2E+02	Benzotrichloride	98-07-7	4.9E-02	c	2.2E-01	c					2.6E-03	c		5.6E-06	
				1.0E-01	P					1	0.1		Benzyl Alcohol	100-51-6	6.1E+03	n	6.2E+04	n					1.5E+03	n		3.7E-01	
1.7E-01	I	4.9E-05	C	2.0E-03	P	1.0E-03	P	V		1		1.5E+03	Benzyl Chloride	100-44-7	1.0E+00	c*	4.9E+00	c*	5.0E-02	c*	2.5E-01	c*	7.7E-02	c*		8.4E-05	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information												Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
		2.4E-03	I	2.0E-03	I	2.0E-05	I			0.007			Beryllium and compounds	7440-41-7	1.6E+02	n	2.0E+03	n	1.0E-03	c*	5.1E-03	c*	1.6E+01	n	4.0E+00	1.3E+01	3.2E+00
				1.0E-04	I					1	0.1		Bidrin	141-66-2	6.1E+00	n	6.2E+01	n					1.6E+00	n		3.6E-04	
				9.0E-03	P					1	0.1		Bifenox	42576-02-3	5.5E+02	n	5.5E+03	n					7.5E+01	n		5.7E-01	
				1.5E-02	I					1	0.1		Biphenthrin	82657-04-3	9.2E+02	n	9.2E+03	n					2.3E+02	n		1.1E+03	
8.0E-03	X			5.0E-02	I	4.0E-04	X	V		1			Biphenyl, 1,1'-	92-52-4	5.1E+01	n	2.1E+02	n	4.2E-01	n	1.8E+00	n	8.3E-01	n		8.7E-03	
7.0E-02	H	1.0E-05	H	4.0E-02	I			V		1		1.0E+03	Bis(2-chloro-1-methylethyl) ether	108-60-1	4.6E+00	c	2.2E+01	c	2.4E-01	c	1.2E+00	c	3.1E-01	c		1.1E-04	
				3.0E-03	P					1	0.1		Bis(2-chloroethoxy)methane	111-91-1	1.8E+02	n	1.8E+03	n					4.6E+01	n		1.1E-02	
1.1E+00	I	3.3E-04	I					V		1		5.1E+03	Bis(2-chloroethyl)ether	111-44-4	2.1E-01	c	1.0E+00	c	7.4E-03	c	3.7E-02	c	1.2E-02	c		3.1E-06	
1.4E-02	I	2.4E-06	C	2.0E-02	I					1	0.1		Bis(2-ethylhexyl)phthalate	117-81-7	3.5E+01	c*	1.2E+02	c	1.0E+00	c	5.1E+00	c	4.8E+00	c*	6.0E+00	1.1E+00	1.4E+00
2.2E+02	I	6.2E-02	I					V		1		4.2E+03	Bis(chloromethyl)ether	542-88-1	7.7E-05	c	3.9E-04	c	3.9E-05	c	2.0E-04	c	6.2E-05	c		1.5E-08	
				5.0E-02	I					1	0.1		Bisphenol A	80-05-7	3.1E+03	n	3.1E+04	n					5.8E+02	n		4.4E+01	
				2.0E-01	I	2.0E-02	H			1			Boron And Borates Only	7440-42-8	1.6E+04	n	2.0E+05	nm	2.1E+01	n	8.8E+01	n	3.1E+03	n		9.9E+00	
				2.0E+00	P	2.0E-02	P		M	1			Boron Trichloride	10294-34-5	1.6E+05	nm	2.0E+06	nm	2.1E+01	n	8.8E+01	n	3.1E+04	n			
				4.0E-02	C	1.3E-02	C			1			Boron Trifluoride	7637-07-2	3.1E+03	n	4.1E+04	n	1.4E+01	n	5.7E+01	n	6.2E+02	n			
7.0E-01	I			4.0E-03	I					1			Bromate	15541-45-4	9.1E-01	c	4.1E+00	c					9.6E-02	c	1.0E+01	7.4E-04	7.7E-02
2.0E+00	X	6.0E-04	X					V		1		2.4E+03	Bromo-2-chloroethane, 1-	107-04-0	2.4E-02	c	1.2E-01	c	4.1E-03	c	2.0E-02	c	6.4E-03	c		1.8E-06	
				8.0E-03	I	6.0E-02	I	V		1		6.8E+02	Bromobenzene	108-86-1	3.0E+02	n	1.8E+03	ns	6.3E+01	n	2.6E+02	n	5.4E+01	n		3.6E-02	
						4.0E-02	X	V		1		4.0E+03	Bromochloromethane	74-97-5	1.6E+02	n	6.8E+02	n	4.2E+01	n	1.8E+02	n	8.3E+01	n		2.1E-02	
6.2E-02	I	3.7E-05	C	2.0E-02	I			V		1		9.3E+02	Bromodichloromethane	75-27-4	2.7E-01	c	1.4E+00	c	6.6E-02	c	3.3E-01	c	1.2E-01	c	8.0E+01(F)	3.2E-05	2.2E-02
7.9E-03	I	1.1E-06	I	2.0E-02	I					1	0.1		Bromoform	75-25-2	6.2E+01	c*	2.2E+02	c*	2.2E+00	c	1.1E+01	c	7.9E+00	c*	8.0E+01(F)	2.1E-03	2.1E-02
				1.4E-03	I	5.0E-03	I	V		1		3.6E+03	Bromomethane	74-83-9	7.3E+00	n	3.2E+01	n	5.2E+00	n	2.2E+01	n	7.0E+00	n		1.8E-03	
				5.0E-03	H					1	0.1		Bromophos	2104-96-3	3.1E+02	n	3.1E+03	n					2.6E+01	n		1.1E-01	
				2.0E-02	I					1	0.1		Bromoxynil	1689-84-5	1.2E+03	n	1.2E+04	n					2.5E+02	n		2.2E-01	
				2.0E-02	I					1	0.1		Bromoxynil Octanoate	1689-99-2	1.2E+03	n	1.2E+04	n					1.0E+02	n		8.7E-01	
3.4E+00	C	3.0E-05	I			2.0E-03	I	V		1		6.7E+02	Butadiene, 1,3-	106-99-0	5.4E-02	c*	2.6E-01	c*	8.1E-02	c*	4.1E-01	c*	1.6E-02	c		8.6E-06	
				1.0E-01	I					1	0.1		Butanol, N-	71-36-3	6.1E+03	n	6.2E+04	n					1.5E+03	n		3.2E-01	
1.9E-03	P			2.0E-01	I					1	0.1		Butyl Benzyl Phthlate	85-68-7	2.6E+02	c*	9.1E+02	c					1.4E+01	c*		2.0E-01	
				2.0E+00	P	3.0E+01	P			1	0.1		Butyl alcohol, sec-	78-92-2	1.2E+05	nm	1.2E+06	nm	3.1E+04	n	1.3E+05	n	3.1E+04	n		6.3E+00	
				5.0E-02	I					1	0.1		Butylate	2008-41-5	3.1E+03	n	3.1E+04	n					3.4E+02	n		3.3E-01	
2.0E-04	C	5.7E-08	C							1	0.1		Butylated hydroxyanisole	25013-16-5	2.4E+03	c	8.6E+03	c	4.3E+01	c	2.2E+02	c	2.1E+02	c		3.9E-01	
				5.0E-02	P			V		1		1.1E+02	Butylbenzene, n-	104-51-8	3.9E+03	ns	5.1E+04	ns					7.8E+02	n		2.5E+00	
				1.0E+00	I					1	0.1		Butylphthalyl Butylglycolate	85-70-1	6.1E+04	n	6.2E+05	nm					1.0E+04	n		2.3E+02	
				2.0E-02	A					1	0.1		Cacodylic Acid	75-60-5	1.2E+03	n	1.2E+04	n					3.1E+02	n			
		1.8E-03	I	1.0E-03	I	2.0E-05	C			0.025	0.001		Cadmium (Diet)	7440-43-9	7.0E+01	n	8.0E+02	n									
		1.8E-03	I	5.0E-04	I	2.0E-05	C			0.05	0.001		Cadmium (Water)	7440-43-9					1.4E-03	c*	6.8E-03	c*	6.9E+00	n	5.0E+00	5.2E-01	3.8E-01
				5.0E-01	I					1	0.1		Caprolactam	105-60-2	3.1E+04	n	3.1E+05	nm					7.7E+03	n		1.9E+00	
1.5E-01	C	4.3E-05	C	2.0E-03	I					1	0.1		Captafol	2425-06-1	3.2E+00	c*	1.1E+01	c	5.7E-02	c	2.9E-01	c	3.5E-01	c*		6.1E-04	
2.3E-03	C	6.6E-07	C	1.3E-01	I					1	0.1		Captan	133-06-2	2.1E+02	c*	7.5E+02	c	3.7E+00	c	1.9E+01	c	2.7E+01	c*		1.9E-02	
				1.0E-01	I					1	0.1		Carbaryl	63-25-2	6.1E+03	n	6.2E+04	n					1.4E+03	n		1.3E+00	
				5.0E-03	I					1	0.1		Carbofuran	1563-66-2	3.1E+02	n	3.1E+03	n					7.3E+01	n	4.0E+01	2.8E-02	1.6E-02
				1.0E-01	I	7.0E-01	I	V		1		7.4E+02	Carbon Disulfide	75-15-0	8.2E+02	ns	3.7E+03	ns	7.3E+02	n	3.1E+03	n	7.2E+02	n		2.1E-01	
7.0E-02	I	6.0E-06	I	4.0E-03	I	1.0E-01	I	V		1		4.6E+02	Carbon Tetrachloride	56-23-5	6.1E-01	c	3.0E+00	c	4.1E-01	c	2.0E+00	c	3.9E-01	c	5.0E+00	1.5E-04	1.9E-03
				1.0E-02	I					1	0.1		Carbosulfan	55285-14-8	6.1E+02	n	6.2E+03	n					3.7E+01	n		9.0E-01	
				1.0E-01	I					1	0.1		Carboxin	5234-68-4	6.1E+03	n	6.2E+04	n					1.5E+03	n		8.0E-01	
						9.0E-04	I			1			Ceric oxide	1306-38-3	1.3E+06	nm	5.4E+06	nm	9.4E-01	n	3.9E+00	n					
				1.0E-01	I					1	0.1		Chloral Hydrate	302-17-0	6.1E+03	n	6.2E+04	n					1.5E+03	n		3.1E-01	
				1.5E-02	I					1	0.1		Chloramben	133-90-4	9.2E+02	n	9.2E+03	n					2.2E+02	n		5.5E-02	
4.0E-01	H									1	0.1		Chloranil	118-75-2	1.2E+00	c	4.3E+00	c					1.6E-01	c		1.3E-04	
3.5E-01	I	1.0E-04	I	5.0E-04	I	7.0E-04	I			1	0.04		Chlordane	12789-03-6	1.6E+00	c*	6.5E+00	c*	2.4E-02	c*	1.2E-01	c*	1.9E-01	c*	2.0E+00	1.3E-02	1.4E-01
1.0E+01	I	4.6E-03	C	3.0E-04	I					1	0.1		Chlordecone (Kepone)	143-50-0	4.9E-02	c	1.7E-01	c	5.3E-04	c	2.7E-03	c	3.0E-03	c		1.1E-04	
				7.0E-04	A					1	0.1		Chlorfenvinphos	470-90-6	4.3E+01	n	4.3E+02	n					8.6E+00	n		2.3E-02	
				2.0E-02	I					1	0.1		Chlorimuron, Ethyl-	90982-32-4	1.2E+03	n	1.2E+04	n					3.0E+02	n		1.0E-01	
				1.0E-01	I	1.5E-04	A			1			Chlorine	7782-50-5	7.5E+03	n	9.1E+04	n	1.5E-01	n	6.4E-01	n	1.6E+03	n		7.0E-01	
				3.0E-02	I	2.0E-04	I			1			Chlorine Dioxide	10049-04-4	2.3E+03	n	3.0E+04	n	2.1E-01	n	8.8E-01	n	4.7E+02	n			
				3.0E-02	I					1			Chlorite (Sodium Salt)	7758-19-2	2.3E+03	n	3.1E+04	n					4.7E+02	n	1.0E+03		
						5.0E+01	I	V		1		1.2E+03	Chloro-1,1-difluoroethane, 1-	75-68-3	5.8E+04	ns	2.4E+05	nms	5.2E+04	n	2.2E+05	n	1.0E+05	n		5.2E+01	
		3.0E-04	I	2.0E-02	H	2.0E-02	I	V		1		7.5E+02	Chloro-1,3-butadiene, 2-	126-99-8	9.4E-03	c	4.7E-02	c	8.1E-03	c	4.1E-02	c	1.6E-02	c		8.5E-06	
4.6E-01	H									1	0.1		Chloro-2-methylaniline HCl, 4-	3165-93-3	1.1E+00	c	3.7E+00	c					1.5E-01	c		1.3E-04	
1.0E-01	P	7.7E-05	C	3.0E-03	X					1	0.1		Chloro-2-methylaniline, 4-	95-69-2	4.9E+00	c*	1.7E+01	c	3.2E-02	c	1.6E-01	c	6.0E-01	c*		3.4E-04	
2.7E-01	X							V		1	0.1	2.8E+04	Chloroacetaldehyde, 2-	107-20-0	1.8E+00	c	6.4E+00	c					2.5E-01	c		5.0E-05	
				2.0E-03	H					1	0.1		Chloroacetic Acid	79-11-8	1.2E+02	n	1.2E+03	n					3.1E+01	n	6.0E+01	6.3E-03	1.2E-02
						3.0E-05	I			1	0.1		Chloroacetophenone, 2-	532-27-4	4.3E+04	n	1.8E+05	nm	3.1E-02	n	1.3E-01	n					
2.0E-01	P			4.0E-03	I					1	0.1		Chloroaniline, p-	106-47-8	2.4E+00	c	8.6E+00	c					3.2E-01	c		1.3E-04	
				2.0E-02	I	5.0E-02	P	V		1		7.6E+02	Chlorobenzene	108-90-7	2.9E+02	n	1.4E+03	ns	5.2E+01	n	2.2E+02	n	7.2E+01	n	1.0E+02	4.9E-02	6.8E-02
1.1E-01	C	3.1E-05	C	2.0E-02	I					1	0.1		Chlorobenzilate	510-15-6	4.4E+00	c	1.6E+01	c	7.8E-02	c	4.0E-01	c	2.7E-01	c		8.8E-04	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				3.0E-02	X					1	0.1		Chlorobenzoic Acid, p-	74-11-3	1.8E+03	n	1.8E+04	n					3.9E+02	n		9.9E-02	
				3.0E-03	P	3.0E-01	P	V		1		1.2E+02	Chlorobenzotrifluoride, 4-	98-56-6	2.1E+02	ns	2.3E+03	ns	3.1E+02	n	1.3E+03	n	2.6E+01	n		9.3E-02	
				4.0E-02	P			V		1		7.3E+02	Chlorobutane, 1-	109-69-3	3.1E+03	ns	4.1E+04	ns					4.8E+02	n		2.0E-01	
						5.0E+01	I	V		1		1.7E+03	Chlorodifluoromethane	75-45-6	5.3E+04	ns	2.2E+05	nms	5.2E+04	n	2.2E+05	n	1.0E+05	n		4.3E+01	
				2.0E-02	P				M	1	0.1		Chloroethanol, 2-	107-07-3	1.2E+03	n	1.2E+04	n					3.1E+02	n		6.3E-02	
3.1E-02	C	2.3E-05	I	1.0E-02	I	9.8E-02	A	V		1		2.5E+03	Chloroform	67-66-3	2.9E-01	c	1.5E+00	c	1.1E-01	c	5.3E-01	c	1.9E-01	c	8.0E+01(F)	5.3E-05	2.2E-02
						9.0E-02	I	V		1		1.3E+03	Chloromethane	74-87-3	1.2E+02	n	5.0E+02	n	9.4E+01	n	3.9E+02	n	1.9E+02	n		4.9E-02	
2.4E+00	C	6.9E-04	C					V		1		2.6E+04	Chloromethyl Methyl Ether	107-30-2	1.9E-02	c	9.4E-02	c	3.5E-03	c	1.8E-02	c	5.6E-03	c		1.2E-06	
				8.0E-02	I			V		1			Chloronaphthalene, Beta-	91-58-7	6.3E+03	n	8.2E+04	n					5.5E+02	n		2.9E+00	
3.0E-01	P			3.0E-03	P	1.0E-05	X			1	0.1		Chloronitrobenzene, o-	88-73-3	1.6E+00	c	5.7E+00	c	1.0E-02	n	4.4E-02	n	2.0E-01	c		1.9E-04	
6.3E-03	P			1.0E-03	P	6.0E-04	P			1	0.1		Chloronitrobenzene, p-	100-00-5	6.1E+01	n	2.7E+02	c**	6.3E-01	n	2.6E+00	n	9.4E+00	c**		8.7E-03	
				5.0E-03	I			V		1		2.2E+04	Chlorophenol, 2-	95-57-8	3.9E+02	n	5.1E+03	n					7.1E+01	n		5.7E-02	
						4.0E-04	C	V		1		6.2E+02	Chloropicrin	76-06-2	2.1E+00	n	8.8E+00	n	4.2E-01	n	1.8E+00	n	8.3E-01	n		2.5E-04	
3.1E-03	C	8.9E-07	C	1.5E-02	I					1	0.1		Chlorothalonil	1897-45-6	1.6E+02	c**	5.6E+02	c*	2.7E+00	c	1.4E+01	c	1.9E+01	c*		4.3E-02	
				2.0E-02	I			V		1		9.1E+02	Chlorotoluene, o-	95-49-8	1.6E+03	ns	2.0E+04	ns					1.8E+02	n		1.7E-01	
				2.0E-02	X			V		1		2.5E+02	Chlorotoluene, p-	106-43-4	1.6E+03	ns	2.0E+04	ns					1.9E+02	n		1.8E-01	
2.4E+02	C	6.9E-02	C							1	0.1		Chlorozotocin	54749-90-5	2.0E-03	c	7.2E-03	c	3.5E-05	c	1.8E-04	c	2.8E-04	c		6.2E-08	
				2.0E-01	I					1	0.1		Chlorpropham	101-21-3	1.2E+04	n	1.2E+05	nm					2.2E+03	n		1.9E+00	
				1.0E-03	A					1	0.1		Chlorpyrifos	2921-88-2	6.1E+01	n	6.2E+02	n					6.2E+00	n		9.2E-02	
				1.0E-02	H					1	0.1		Chlorpyrifos Methyl	5598-13-0	6.1E+02	n	6.2E+03	n					8.9E+01	n		4.1E-01	
				5.0E-02	I					1	0.1		Chlorsulfuron	64902-72-3	3.1E+03	n	3.1E+04	n					7.7E+02	n		6.5E-01	
				8.0E-04	H					1	0.1		Chlorthiophos	60238-56-4	4.9E+01	n	4.9E+02	n					2.0E+00	n		5.2E-02	
				1.5E+00	I					0.013			Chromium(III), Insoluble Salts	16065-83-1	1.2E+05	nm	1.5E+06	nm					1.6E+04	n		2.8E+07	
5.0E-01	J	8.4E-02	S	3.0E-03	I	1.0E-04	I		M	0.025			Chromium(VI)	18540-29-9	2.9E-01	c	5.6E+00	c	1.1E-05	c	1.5E-04	c	3.1E-02	c		5.9E-04	
										0.013			Chromium, Total	7440-47-3											1.0E+02		1.8E+05
		9.0E-03	P	3.0E-04	P	6.0E-06	P			1			Cobalt	7440-48-4	2.3E+01	n	3.0E+02	n	2.7E-04	c*	1.4E-03	c*	4.7E+00	n		2.1E-01	
		6.2E-04	I						M	1	0.1		Coke Oven Emissions	8007-45-2					1.5E-03	c	2.0E-02	c					
				4.0E-02	H					1			Copper	7440-50-8	3.1E+03	n	4.1E+04	n					6.2E+02	n	1.3E+03	2.2E+01	4.6E+01
				5.0E-02	I	6.0E-01	C			1	0.1		Cresol, m-	108-39-4	3.1E+03	n	3.1E+04	n	6.3E+02	n	2.6E+03	n	7.2E+02	n		5.7E-01	
				5.0E-02	I	6.0E-01	C			1	0.1		Cresol, o-	95-48-7	3.1E+03	n	3.1E+04	n	6.3E+02	n	2.6E+03	n	7.2E+02	n		5.8E-01	
				1.0E-01	A	6.0E-01	C			1	0.1		Cresol, p-	106-44-5	6.1E+03	n	6.2E+04	n	6.3E+02	n	2.6E+03	n	1.4E+03	n		1.1E+00	
				1.0E-01	A					1	0.1		Cresol, p-chloro-m-	59-50-7	6.1E+03	n	6.2E+04	n					1.1E+03	n		1.3E+00	
				1.0E-01	A	6.0E-01	C			1	0.1		Cresols	1319-77-3	6.1E+03	n	6.2E+04	n	6.3E+02	n	2.6E+03	n	1.4E+03	n		1.2E+00	
1.9E+00	H			1.0E-03	P			V		1		1.7E+04	Crotonaldehyde, trans-	123-73-9	3.4E-01	c	1.5E+00	c					3.5E-02	c		7.1E-06	
				1.0E-01	I	4.0E-01	I	V		1		2.7E+02	Cumene	98-82-8	2.1E+03	ns	1.1E+04	ns	4.2E+02	n	1.8E+03	n	3.9E+02	n		6.4E-01	
2.2E-01	C	6.3E-05	C							1	0.1		Cupferron	135-20-6	2.2E+00	c	7.8E+00	c	3.9E-02	c	1.9E-01	c	3.1E-01	c		5.3E-04	
8.4E-01	H			2.0E-03	H					1	0.1		Cyanazine	21725-46-2	5.8E-01	c	2.1E+00	c					7.6E-02	c		3.5E-05	
													Cyanides															
				1.0E-03	I					1			~Calcium Cyanide	592-01-8	7.8E+01	n	1.0E+03	n					1.6E+01	n			
				5.0E-03	I					1			~Copper Cyanide	544-92-3	3.9E+02	n	5.1E+03	n					7.8E+01	n			
				6.0E-04	I	8.0E-04	S	V		1		1.0E+07	~Cyanide (CN-)	57-12-5	2.2E+01	n	1.4E+02	n	8.3E-01	n	3.5E+00	n	1.4E+00	n	2.0E+02	1.4E-02	2.0E+00
				1.0E-03	I			V		1			~Cyanogen	460-19-5	7.8E+01	n	1.0E+03	n					1.6E+01	n			
				9.0E-02	I			V		1			~Cyanogen Bromide	506-68-3	7.0E+03	n	9.2E+04	n					1.4E+03	n			
				5.0E-02	I			V		1			~Cyanogen Chloride	506-77-4	3.9E+03	n	5.1E+04	n					7.8E+02	n			
				6.0E-04	I	8.0E-04	I	V		1		1.0E+07	~Hydrogen Cyanide	74-90-8	2.3E+01	n	1.5E+02	n	8.3E-01	n	3.5E+00	n	1.4E+00	n		1.4E-02	
				2.0E-03	I					1			~Potassium Cyanide	151-50-8	1.6E+02	n	2.0E+03	n					3.1E+01	n			
				5.0E-03	I					0.04			~Potassium Silver Cyanide	506-61-6	3.9E+02	n	5.1E+03	n					5.9E+01	n			
				1.0E-01	I					0.04			~Silver Cyanide	506-64-9	7.8E+03	n	1.0E+05	nm					1.3E+03	n			
				1.0E-03	I					1			~Sodium Cyanide	143-33-9	7.8E+01	n	1.0E+03	n					1.6E+01	n	2.0E+02		
				2.0E-04	X					1			~Thiocyanate	463-56-9	1.6E+01	n	2.0E+02	n					3.1E+00	n			
				5.0E-02	I					1			~Zinc Cyanide	557-21-1	3.9E+03	n	5.1E+04	n					7.8E+02	n			
						6.0E+00	I	V		1		1.2E+02	Cyclohexane	110-82-7	7.0E+03	ns	2.9E+04	ns	6.3E+03	n	2.6E+04	n	1.3E+04	n		1.3E+01	
2.3E-02	H									1	0.1		Cyclohexane, 1,2,3,4,5-pentabromo-6-chloro-	87-84-3	2.1E+01	c	7.5E+01	c					2.1E+00	c		1.2E-02	
				5.0E+00	I	7.0E-01	P			1	0.1		Cyclohexanone	108-94-1	3.1E+05	nm	3.1E+06	nm	7.3E+02	n	3.1E+03	n	7.7E+04	n		1.8E+01	
				5.0E-03	P	1.0E+00	X	V		1		2.8E+02	Cyclohexene	110-83-8	3.1E+02	ns	2.8E+03	ns	1.0E+03	n	4.4E+03	n	5.3E+01	n		3.5E-02	
				2.0E-01	I					1	0.1		Cyclohexylamine	108-91-8	1.2E+04	n	1.2E+05	nm					3.0E+03	n		7.9E-01	
				5.0E-03	I					1	0.1		Cyhalothrin/karate	68085-85-8	3.1E+02	n	3.1E+03	n					7.8E+01	n		5.3E+01	
				1.0E-02	I					1	0.1		Cypermethrin	52315-07-8	6.1E+02	n	6.2E+03	n					1.6E+02	n		2.5E+01	
				7.5E-03	I					1	0.1		Cyromazine	66215-27-8	4.6E+02	n	4.6E+03	n					1.2E+02	n		3.0E-02	
2.4E-01	I	6.9E-05	C							1	0.1		DDD	72-54-8	2.0E+00	c	7.2E+00	c	3.5E-02	c	1.8E-01	c	2.7E-02	c		6.4E-03	
3.4E-01	I	9.7E-05	C							1	0.1		DDE, p,p'-	72-55-9	1.4E+00	c	5.1E+00	c	2.5E-02	c	1.3E-01	c	2.0E-01	c		4.6E-02	
3.4E-01	I	9.7E-05	I	5.0E-04	I					1	0.03		DDT	50-29-3	1.7E+00	c*	7.0E+00	c*	2.5E-02	c	1.3E-01	c	2.0E-01	c*		6.7E-02	
				1.0E-02	I					1	0.1		Dacthal	1861-32-1	6.1E+02	n	6.2E+03	n					9.3E+01	n		1.1E-01	
				3.0E-02	I					1	0.1		Dalapon	75-99-0	1.8E+03	n	1.8E+04	n					4.6E+02	n	2.0E+02	9.6E-02	4.1E-02
7.0E-04	I			7.0E-03	I					1	0.1		Decabromodiphenyl ether, 2,2',3,3',4,4',5,5',6,6'- (BDE-209)	1163-19-5	4.3E+02	n	2.5E+03	c**					9.6E+01	c**		5.3E+01	

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Toxicity and Chemical-specific Information													Contaminant		Screening Levels										Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	voc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				4.0E-05	I					1	0.1		Demeton	8065-48-3	2.4E+00	n	2.5E+01	n					5.2E-01	n			
1.2E-03	I			6.0E-01	I					1	0.1		Di(2-ethylhexyl)adipate	103-23-1	4.1E+02	c*	1.4E+03	c					5.6E+01	c	4.0E+02	4.0E+00	2.9E+01
6.1E-02	H									1	0.1		Diallate	2303-16-4	8.0E+00	c	2.8E+01	c					4.6E-01	c		6.8E-04	
				7.0E-04	A					1	0.1		Diazinon	333-41-5	4.3E+01	n	4.3E+02	n					7.9E+00	n		4.9E-02	
8.0E-01	P	6.0E-03	P	2.0E-04	P	2.0E-04	I	V	M	1		9.8E+02	Dibromo-3-chloropropane, 1,2-	96-12-8	5.4E-03	c	6.9E-02	c	1.6E-04	c	2.0E-03	c	3.2E-04	c	2.0E-01	1.4E-07	8.6E-05
				1.0E-02	I					1	0.1		Dibromobenzene, 1,4-	106-37-6	6.1E+02	n	6.2E+03	n					9.8E+01	n		9.3E-02	
8.4E-02	I	2.7E-05	C	2.0E-02	I			V		1	0.1	8.0E+02	Dibromochloromethane	124-48-1	6.8E-01	c	3.3E+00	c	9.0E-02	c	4.5E-01	c	1.5E-01	c	8.0E+01(F)	3.9E-05	2.1E-02
2.0E+00	I	6.0E-04	I	9.0E-03	I	9.0E-03	I	V		1		1.3E+03	Dibromoethane, 1,2-	106-93-4	3.4E-02	c	1.7E-01	c	4.1E-03	c	2.0E-02	c	6.5E-03	c	5.0E-02	1.8E-06	1.4E-05
				1.0E-02	H	4.0E-03	X	V		1		2.8E+03	Dibromomethane (Methylene Bromide)	74-95-3	2.5E+01	n	1.1E+02	n	4.2E+00	n	1.8E+01	n	7.9E+00	n		1.9E-03	
				1.0E-01	I					1	0.1		Dibutyl Phthalate	84-74-2	6.1E+03	n	6.2E+04	n					6.7E+02	n		1.7E+00	
				3.0E-04	P					1	0.1		Dibutyltin Compounds	NA	1.8E+01	n	1.8E+02	n					4.7E+00	n			
				3.0E-02	I					1	0.1		Dicamba	1918-00-9	1.8E+03	n	1.8E+04	n					4.4E+02	n		1.1E-01	
		4.2E-03	P					V		1		5.2E+02	Dichloro-2-butene, 1,4-	764-41-0	6.9E-03	c	3.5E-02	c	5.8E-04	c	2.9E-03	c	1.2E-03	c		5.4E-07	
		4.2E-03	P					V		1	0.1	5.2E+02	Dichloro-2-butene, cis-1,4-	1476-11-5	6.9E-03	c	3.5E-02	c	5.8E-04	c	2.9E-03	c	1.2E-03	c		5.4E-07	
		4.2E-03	P					V		1	0.1	7.6E+02	Dichloro-2-butene, trans-1,4-	110-57-6	6.9E-03	c	3.5E-02	c	5.8E-04	c	2.9E-03	c	1.2E-03	c		5.4E-07	
5.0E-02	I			4.0E-03	I					1	0.1		Dichloroacetic Acid	79-43-6	9.7E+00	c*	3.4E+01	c*					1.3E+00	c*	6.0E+01	2.7E-04	1.2E-02
				9.0E-02	I	2.0E-01	H	V		1		3.8E+02	Dichlorobenzene, 1,2-	95-50-1	1.9E+03	ns	9.8E+03	ns	2.1E+02	n	8.8E+02	n	2.8E+02	n	6.0E+02	2.7E-01	5.8E-01
5.4E-03	C	1.1E-05	C	7.0E-02	A	8.0E-01	I	V		1			Dichlorobenzene, 1,4-	106-46-7	2.4E+00	c	1.2E+01	c	2.2E-01	c	1.1E+00	c	4.2E-01	c	7.5E+01	4.0E-04	7.2E-02
4.5E-01	I	3.4E-04	C							1	0.1		Dichlorobenzidine, 3,3'-	91-94-1	1.1E+00	c	3.8E+00	c	7.2E-03	c	3.6E-02	c	1.1E-01	c		7.1E-04	
				9.0E-03	X					1	0.1		Dichlorobenzophenone, 4,4'-	90-98-2	5.5E+02	n	5.5E+03	n					5.7E+01	n		3.5E-01	
				2.0E-01	I	1.0E-01	X	V		1		8.5E+02	Dichlorodifluoromethane	75-71-8	9.4E+01	n	4.0E+02	n	1.0E+02	n	4.4E+02	n	1.9E+02	n		3.0E-01	
5.7E-03	C	1.6E-06	C	2.0E-01	P			V		1		1.7E+03	Dichloroethane, 1,1-	75-34-3	3.3E+00	c	1.7E+01	c	1.5E+00	c	7.7E+00	c	2.4E+00	c		6.8E-04	
9.1E-02	I	2.6E-05	I	6.0E-03	X	7.0E-03	P	V		1		3.0E+03	Dichloroethane, 1,2-	107-06-2	4.3E-01	c*	2.2E+00	c*	9.4E-02	c*	4.7E-01	c*	1.5E-01	c*	5.0E+00	4.2E-05	1.4E-03
				5.0E-02	I	2.0E-01	I	V		1		1.2E+03	Dichloroethylene, 1,1-	75-35-4	2.4E+02	n	1.1E+03	n	2.1E+02	n	8.8E+02	n	2.6E+02	n	7.0E+00	9.3E-02	2.5E-03
				9.0E-03	H			V		1		1.3E+03	Dichloroethylene, 1,2- (Mixed Isomers)	540-59-0	7.0E+02	n	9.2E+03	ns					1.3E+02	n		3.7E-02	
				2.0E-03	I			V		1		2.4E+03	Dichloroethylene, 1,2-cis-	156-59-2	1.6E+02	n	2.0E+03	n					2.8E+01	n	7.0E+01	8.2E-03	2.1E-02
				2.0E-02	I	6.0E-02	P	V		1		1.7E+03	Dichloroethylene, 1,2-trans-	156-60-5	1.5E+02	n	6.9E+02	n	6.3E+01	n	2.6E+02	n	8.6E+01	n	1.0E+02	2.5E-02	2.9E-02
				3.0E-03	I					1	0.1		Dichlorophenol, 2,4-	120-83-2	1.8E+02	n	1.8E+03	n					3.5E+01	n		4.1E-02	
				1.0E-02	I					1	0.05		Dichlorophenoxy Acetic Acid, 2,4-	94-75-7	6.9E+02	n	7.7E+03	n					1.3E+02	n	7.0E+01	3.5E-02	1.8E-02
				8.0E-03	I					1	0.1		Dichlorophenoxy)butyric Acid, 4-(2,4-	94-82-6	4.9E+02	n	4.9E+03	n					9.1E+01	n		3.6E-02	
3.6E-02	C	1.0E-05	C	9.0E-02	A	4.0E-03	I	V		1		1.4E+03	Dichloropropane, 1,2-	78-87-5	9.4E-01	c*	4.7E+00	c*	2.4E-01	c*	1.2E+00	c*	3.8E-01	c*	5.0E+00	1.3E-04	1.7E-03
				2.0E-02	P			V		1		1.5E+03	Dichloropropane, 1,3-	142-28-9	1.6E+03	ns	2.0E+04	ns					2.9E+02	n		9.9E-02	
				3.0E-03	I					1	0.1		Dichloropropanol, 2,3-	616-23-9	1.8E+02	n	1.8E+03	n					4.6E+01	n		9.8E-03	
1.0E-01	I	4.0E-06	I	3.0E-02	I	2.0E-02	I	V		1		1.6E+03	Dichloropropene, 1,3-	542-75-6	1.7E+00	c*	8.3E+00	c*	6.1E-01	c*	3.1E+00	c*	4.1E-01	c*		1.5E-04	
2.9E-01	I	8.3E-05	C	5.0E-04	I	5.0E-04	I			1	0.1		Dichlorvos	62-73-7	1.7E+00	c*	5.9E+00	c*	2.9E-02	c*	1.5E-01	c*	2.3E-01	c*		7.0E-05	
				8.0E-03	P	7.0E-03	P	V		1			Dicyclopentadiene	77-73-6	3.1E+01	n	1.3E+02	n	7.3E+00	n	3.1E+01	n	1.2E+01	n		4.3E-02	
1.6E+01	I	4.6E-03	I	5.0E-05	I					1	0.1		Dieldrin	60-57-1	3.0E-02	c	1.1E-01	c	5.3E-04	c	2.7E-03	c	1.5E-03	c		6.1E-05	
		3.0E-04	C			5.0E-03	I			1	0.1		Diesel Engine Exhaust	NA					8.1E-03	c	4.1E-02	c					
				2.0E-03	P	2.0E-04	P			1	0.1		Diethanolamine	111-42-2	1.2E+02	n	1.2E+03	n	2.1E-01	n	8.8E-01	n	3.1E+01	n		6.3E-03	
				8.0E-01	I					1	0.1		Diethyl Phthalate	84-66-2	4.9E+04	n	4.9E+05	nm					1.1E+04	n		4.7E+00	
				3.0E-02	P	1.0E-04	P			1	0.1		Diethylene Glycol Monobutyl Ether	112-34-5	1.8E+03	n	1.8E+04	n	1.0E-01	n	4.4E-01	n	4.7E+02	n		1.0E-01	
				6.0E-02	P	3.0E-04	P			1	0.1		Diethylene Glycol Monoethyl Ether	111-90-0	3.6E+03	n	3.6E+04	n	3.1E-01	n	1.3E+00	n	9.4E+02	n		1.9E-01	
				1.0E-03	P					1	0.1		Diethylformamide	617-84-5	6.1E+01	n	6.2E+02	n					1.6E+01	n		3.2E-03	
3.5E+02	C	1.0E-01	C							1	0.1		Diethylstilbestrol	56-53-1	1.4E-03	c	4.9E-03	c	2.4E-05	c	1.2E-04	c	4.3E-05	c		2.4E-05	
				8.0E-02	I					1	0.1		Difenzoquat	43222-48-6	4.9E+03	n	4.9E+04	n					1.2E+03	n			
				2.0E-02	I					1	0.1		Diflubenzuron	35367-38-5	1.2E+03	n	1.2E+04	n					2.2E+02	n		2.5E-01	
						4.0E+01	I	V		1		1.4E+03	Difluoroethane, 1,1-	75-37-6	5.2E+04	ns	2.2E+05	nms	4.2E+04	n	1.8E+05	n	8.3E+04	n		2.8E+01	
4.4E-02	C	1.3E-05	C					V		1	0.1		Dihydrosafrole	94-58-6	2.4E-01	c	1.2E+00	c	1.9E-01	c	9.4E-01	c	2.6E-01	c		3.2E-04	
						7.0E-01	P	V		1		2.3E+03	Diisopropyl Ether	108-20-3	2.4E+03	ns	1.0E+04	ns	7.3E+02	n	3.1E+03	n	1.5E+03	n		3.7E-01	
				8.0E-02	I			V		1		5.3E+02	Diisopropyl Methylphosphonate	1445-75-6	6.3E+03	ns	8.2E+04	ns					1.2E+03	n		3.5E-01	
				2.0E-02	I					1	0.1		Dimethipin	55290-64-7	1.2E+03	n	1.2E+04	n					3.1E+02	n		6.9E-02	
				2.0E-04	I					1	0.1		Dimethoate	60-51-5	1.2E+01	n	1.2E+02	n					3.1E+00	n		7.0E-04	
1.4E-02	H									1	0.1		Dimethoxybenzidine, 3,3'-	119-90-4	3.5E+01	c	1.2E+02	c					4.7E+00	c		5.7E-03	
1.7E-03	P			6.0E-02	P					1	0.1		Dimethyl methylphosphonate	756-79-6	2.9E+02	c*	1.0E+03	c*					3.9E+01	c*		8.3E-03	
4.6E+00	C	1.3E-03	C							1	0.1		Dimethylamino azobenzene [p-]	60-11-7	1.1E-01	c	3.7E-01	c	1.9E-03	c	9.4E-03	c	4.3E-03	c		1.8E-05	
5.8E-01	H									1	0.1		Dimethylaniline HCl, 2,4-	21436-96-4	8.4E-01	c	3.0E+00	c					1.2E-01	c		1.0E-04	
2.0E-01	P			2.0E-03	X					1	0.1		Dimethylaniline, 2,4-	95-68-1	2.4E+00	c*	8.6E+00	c					3.2E-01	c*		1.8E-04	
				2.0E-03	I			V		1		8.3E+02	Dimethylaniline, N,N-	121-69-7	1.6E+02	n	2.0E+03	ns					2.7E+01	n		9.8E-03	
1.1E+01	P									1	0.1		Dimethylbenzidine, 3,3'-	119-93-7	4.4E-02	c	1.6E-01	c					5.6E-03	c		3.7E-05	
				1.0E-01	P	3.0E-02	I			1	0.1		Dimethylformamide	68-12-2	6.1E+03	n	6.2E+04	n	3.1E+01	n	1.3E+02	n	1.6E+03	n		3.2E-01	
				1.0E-04	X	2.0E-06	X			1	0.1		Dimethylhydrazine, 1,1-	57-14-7	6.1E+00	n	6.1E+01	n	2.1E-03	n	8.8E-03	n	1.6E+00	n		3.5E-04	
5.5E+02	C	1.6E-01	C							1	0.1		Dimethylhydrazine, 1,2-	540-73-8	8.8E-04	c	3.1E-03	c	1.5E-05	c	7.7E-05	c	1.2E-04	c		2.8E-08	
				2.0E-02	I					1	0.1		Dimethylphenol, 2,4-	105-67-9	1.2E+03	n	1.2E+04	n					2.7E+02	n		3.2E-01	
				6.0E-04	I					1	0.1		Dimethylphenol, 2,6-	576-26-1	3.7E+01	n	3.7E+02	n					8.1E+00	n		9.8E-03	
				1.0E-03	I					1	0.1		Dimethylphenol, 3,4-	95-65-8	6.1E+01	n	6.2E+02	n					1.4E+01	n		1.6E-02	

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Toxicity and Chemical-specific Information																Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				1.0E-01	I			V		1			Dimethylterephthalate	120-61-6	7.8E+03	n	1.0E+05	nm					1.4E+03	n		3.8E-01	
4.5E-02	C	1.3E-05	C					V		1	0.1	1.1E+03	Dimethylvinylchloride	513-37-1	2.0E-01	c	1.0E+00	c	1.9E-01	c	9.4E-01	c	2.8E-01	c		1.8E-04	
				8.0E-05	X					1	0.1		Dinitro-o-cresol, 4,6-	534-52-1	4.9E+00	n	4.9E+01	n					1.2E+00	n		2.0E-03	
				2.0E-03	I					1	0.1		Dinitro-o-cyclohexyl Phenol, 4,6-	131-89-5	1.2E+02	n	1.2E+03	n					1.7E+01	n		5.7E-01	
				1.0E-04	P					1	0.1		Dinitrobenzene, 1,2-	528-29-0	6.1E+00	n	6.2E+01	n					1.5E+00	n		1.4E-03	
				1.0E-04	I					1	0.1		Dinitrobenzene, 1,3-	99-65-0	6.1E+00	n	6.2E+01	n					1.5E+00	n		1.4E-03	
				1.0E-04	P					1	0.1		Dinitrobenzene, 1,4-	100-25-4	6.1E+00	n	6.2E+01	n					1.5E+00	n		1.4E-03	
				2.0E-03	I					1	0.1		Dinitrophenol, 2,4-	51-28-5	1.2E+02	n	1.2E+03	n					3.0E+01	n		3.4E-02	
6.8E-01	I									1	0.1		Dinitrotoluene Mixture, 2,4/2,6-	25321-14-6	7.2E-01	c	2.5E+00	c					9.2E-02	c		1.3E-04	
3.1E-01	C	8.9E-05	C	2.0E-03	I					1	0.102		Dinitrotoluene, 2,4-	121-14-2	1.6E+00	c*	5.5E+00	c	2.7E-02	c	1.4E-01	c	2.0E-01	c		2.8E-04	
				1.0E-03	P					1	0.099		Dinitrotoluene, 2,6-	606-20-2	6.1E+01	n	6.2E+02	n					1.5E+01	n		2.0E-02	
				2.0E-03	S					1	0.006		Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.5E+02	n	2.0E+03	n					3.0E+01	n		2.3E-02	
				2.0E-03	S					1	0.009		Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.5E+02	n	1.9E+03	n					3.0E+01	n		2.3E-02	
				1.0E-03	I					1	0.1		Dinoseb	88-85-7	6.1E+01	n	6.2E+02	n					1.1E+01	n	7.0E+00	9.8E-02	6.2E-02
1.0E-01	I	7.7E-06	C	3.0E-02	I	3.0E+00	C			1	0.1		Dioxane, 1,4-	123-91-1	4.9E+00	c	1.7E+01	c	3.2E-01	c	1.6E+00	c	6.7E-01	c		1.4E-04	
													Dioxins															
6.2E+03	I	1.3E+00	I							1	0.03		~Hexachlorodibenzo-p-dioxin, Mixture	NA	9.4E-05	c	3.9E-04	c	1.9E-06	c	9.4E-06	c	1.1E-05	c		1.5E-05	
1.3E+05	C	3.8E+01	C	7.0E-10	I	4.0E-08	C			1	0.03		~TCDD, 2,3,7,8-	1746-01-6	4.5E-06	c*	1.8E-05	c*	6.4E-08	c	3.2E-07	c	5.2E-07	c*	3.0E-05	2.6E-07	1.5E-05
				3.0E-02	I					1	0.1		Diphenamid	957-51-7	1.8E+03	n	1.8E+04	n					4.1E+02	n		4.0E+00	
				8.0E-04	X					1	0.1		Diphenyl Sulfone	127-63-9	4.9E+01	n	4.9E+02	n					1.1E+01	n		2.8E-02	
				2.5E-02	I					1	0.1		Diphenylamine	122-39-4	1.5E+03	n	1.5E+04	n					2.4E+02	n		4.4E-01	
8.0E-01	I	2.2E-04	I							1	0.1		Diphenylhydrazine, 1,2-	122-66-7	6.1E-01	c	2.2E+00	c	1.1E-02	c	5.6E-02	c	6.7E-02	c		2.2E-04	
				2.2E-03	I					1	0.1		Diquat	85-00-7	1.3E+02	n	1.4E+03	n					3.4E+01	n	2.0E+01	6.5E-01	3.7E-01
7.4E+00	C	2.1E-03	C							1	0.1		Direct Black 38	1937-37-7	6.6E-02	c	2.3E-01	c	1.2E-03	c	5.8E-03	c	9.1E-03	c		4.4E+00	
7.4E+00	C	2.1E-03	C							1	0.1		Direct Blue 6	2602-46-2	6.6E-02	c	2.3E-01	c	1.2E-03	c	5.8E-03	c	9.1E-03	c		1.4E+01	
6.7E+00	C	1.9E-03	C							1	0.1		Direct Brown 95	16071-86-6	7.3E-02	c	2.6E-01	c	1.3E-03	c	6.5E-03	c	1.0E-02	c			
				4.0E-05	I					1	0.1		Disulfoton	298-04-4	2.4E+00	n	2.5E+01	n					3.8E-01	n		7.1E-04	
				1.0E-02	I			V		1	0.1		Dithiane, 1,4-	505-29-3	6.1E+02	n	6.2E+03	n					1.5E+02	n		7.6E-02	
				2.0E-03	I					1	0.1		Diuron	330-54-1	1.2E+02	n	1.2E+03	n					2.8E+01	n		1.2E-02	
				4.0E-03	I					1	0.1		Dodine	2439-10-3	2.4E+02	n	2.5E+03	n					6.2E+01	n		3.2E-01	
				2.5E-02	I			V		1			EPTC	759-94-4	2.0E+03	n	2.6E+04	n					2.9E+02	n		1.5E-01	
				6.0E-03	I					1	0.1		Endosulfan	115-29-7	3.7E+02	n	3.7E+03	n					7.8E+01	n		1.1E+00	
				2.0E-02	I					1	0.1		Endothall	145-73-3	1.2E+03	n	1.2E+04	n					3.0E+02	n	1.0E+02	7.1E-02	2.4E-02
				3.0E-04	I					1	0.1		Endrin	72-20-8	1.8E+01	n	1.8E+02	n					1.7E+00	n	2.0E+00	6.8E-02	8.1E-02
9.9E-03	I	1.2E-06	I	6.0E-03	P	1.0E-03	I	V		1		1.1E+04	Epichlorohydrin	106-89-8	2.0E+01	n	8.8E+01	n	1.0E+00	n	4.4E+00	n	2.0E+00	n		4.5E-04	
						2.0E-02	I	V		1		1.5E+04	Epoxybutane, 1,2-	106-88-7	1.7E+02	n	7.2E+02	n	2.1E+01	n	8.8E+01	n	4.2E+01	n		9.2E-03	
				5.0E-03	I					1	0.1		Ethephon	16672-87-0	3.1E+02	n	3.1E+03	n					7.8E+01	n		1.6E-02	
				5.0E-04	I					1	0.1		Ethion	563-12-2	3.1E+01	n	3.1E+02	n					3.2E+00	n		6.3E-03	
				1.0E-01	P	6.0E-02	P			1	0.1		Ethoxyethanol Acetate, 2-	111-15-9	6.1E+03	n	6.2E+04	n	6.3E+01	n	2.6E+02	n	1.5E+03	n		3.2E-01	
				4.0E-01	H	2.0E-01	I			1	0.1		Ethoxyethanol, 2-	110-80-5	2.4E+04	n	2.5E+05	nm	2.1E+02	n	8.8E+02	n	6.2E+03	n		1.3E+00	
				9.0E-01	I			V		1		1.1E+04	Ethyl Acetate	141-78-6	7.0E+04	ns	9.2E+05	nms					1.4E+04	n		2.9E+00	
4.8E-02	H							V		1		2.5E+03	Ethyl Acrylate	140-88-5	1.3E+01	c	6.0E+01	c					1.4E+00	c		3.0E-04	
						1.0E+01	I	V		1		2.1E+03	Ethyl Chloride	75-00-3	1.5E+04	ns	6.1E+04	ns	1.0E+04	n	4.4E+04	n	2.1E+04	n		5.9E+00	
				2.0E-01	I			V		1		1.0E+04	Ethyl Ether	60-29-7	1.6E+04	ns	2.0E+05	nms					3.1E+03	n		6.8E-01	
				9.0E-02	H	3.0E-01	P	V		1		1.1E+03	Ethyl Methacrylate	97-63-2	1.5E+03	ns	7.5E+03	ns	3.1E+02	n	1.3E+03	n	4.2E+02	n		9.9E-02	
				1.0E-05	I					1	0.1		Ethyl-p-nitrophenyl Phosphonate	2104-64-5	6.1E-01	n	6.2E+00	n					6.6E-02	n		2.1E-03	
1.1E-02	C	2.5E-06	C	1.0E-01	I	1.0E+00	I	V		1		4.8E+02	Ethylbenzene	100-41-4	5.4E+00	c	2.7E+01	c	9.7E-01	c	4.9E+00	c	1.3E+00	c	7.0E+02	1.5E-03	7.8E-01
				7.0E-02	P					1	0.1		Ethylene Cyanohydrin	109-78-4	4.3E+03	n	4.3E+04	n					1.1E+03	n		2.2E-01	
				9.0E-02	P					1	0.1		Ethylene Diamine	107-15-3	5.5E+03	n	5.5E+04	n					1.4E+03	n		3.2E-01	
				2.0E+00	I	4.0E-01	C			1	0.1		Ethylene Glycol	107-21-1	1.2E+05	nm	1.2E+06	nm	4.2E+02	n	1.8E+03	n	3.1E+04	n		6.3E+00	
				1.0E-01	I	1.6E+00	I			1	0.1		Ethylene Glycol Monobutyl Ether	111-76-2	6.1E+03	n	6.2E+04	n	1.7E+03	n	7.0E+03	n	1.5E+03	n		3.2E-01	
3.1E-01	C	8.8E-05	C			3.0E-02	C	V		1		1.2E+05	Ethylene Oxide	75-21-8	1.7E-01	c	8.3E-01	c	2.8E-02	c	1.4E-01	c	4.4E-02	c		9.1E-06	
4.5E-02	C	1.3E-05	C	8.0E-05	I					1	0.1		Ethylene Thiourea	96-45-7	4.9E+00	n	3.8E+01	c**	1.9E-01	c	9.4E-01	c	1.2E+00	n		2.8E-04	
6.5E+01	C	1.9E-02	C					V		1	0.1	1.5E+05	Ethyleneimine	151-56-4	2.3E-03	c	1.0E-02	c	1.3E-04	c	6.5E-04	c	2.1E-04	c		4.5E-08	
				3.0E+00	I					1	0.1		Ethylphthalyl Ethyl Glycolate	84-72-0	1.8E+05	nm	1.8E+06	nm					4.5E+04	n		1.0E+02	
				8.0E-03	I					1	0.1		Express	101200-48-0	4.9E+02	n	4.9E+03	n					1.2E+02	n		4.7E-02	
				2.5E-04	I					1	0.1		Fenamiphos	22224-92-6	1.5E+01	n	1.5E+02	n					3.4E+00	n		3.3E-03	
				2.5E-02	I					1	0.1		Fenpropathrin	39515-41-8	1.5E+03	n	1.5E+04	n					4.6E+01	n		2.1E+00	
				1.3E-02	I					1	0.1		Fluometuron	2164-17-2	7.9E+02	n	8.0E+03	n					1.9E+02	n		1.4E-01	
				4.0E-02	C	1.3E-02	C			1			Fluoride	16984-48-8	3.1E+03	n	4.1E+04	n	1.4E+01	n	5.7E+01	n	6.2E+02	n		9.3E+01	
				6.0E-02	I	1.3E-02	C			1			Fluorine (Soluble Fluoride)	7782-41-4	4.7E+03	n	6.1E+04	n	1.4E+01	n	5.7E+01	n	9.3E+02	n	4.0E+03	1.4E+02	6.0E+02
				8.0E-02	I					1	0.1		Fluridone	59756-60-4	4.9E+03	n	4.9E+04	n					1.1E+03	n		1.3E+02	
				2.0E-02	I					1	0.1		Flurprimidol	56425-91-3	1.2E+03	n	1.2E+04	n					2.6E+02	n		1.2E+00	
				6.0E-02	I					1	0.1		Flutolanil	66332-96-5	3.7E+03	n	3.7E+04	n					7.2E+02	n		3.9E+00	
				1.0E-02	I					1	0.1		Fluvalinate	69409-94-5	6.1E+02	n	6.2E+03	n					1.6E+02	n		2.3E+02	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information													Contaminant		Screening Levels										Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	voc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
3.5E-03	I			1.0E-01	I					1	0.1		Folpet	133-07-3	1.4E+02	c*	4.9E+02	c					1.7E+01	c*		4.1E-03	
1.9E-01	I									1	0.1		Fomesafen	72178-02-0	2.6E+00	c	9.1E+00	c					3.4E-01	c		1.1E-03	
				2.0E-03	I					1	0.1		Fonofos	944-22-9	1.2E+02	n	1.2E+03	n					1.8E+01	n		3.5E-02	
		1.3E-05	I	2.0E-01	I	9.8E-03	A			1	0.1		Formaldehyde	50-00-0	1.2E+04	n	1.2E+05	nm	1.9E-01	c*	9.4E-01	c*	3.1E+03	n		6.2E-01	
				9.0E-01	P	3.0E-04	X			1	0.1		Formic Acid	64-18-6	4.9E+04	n	4.2E+05	nm	3.1E-01	n	1.3E+00	n	1.4E+04	n		2.8E+00	
				3.0E+00	I					1	0.1		Fosetyl-AL	39148-24-8	1.8E+05	nm	1.8E+06	nm					4.7E+04	n			
													Furans														
				1.0E-03	X			V		1			~Dibenzofuran	132-64-9	7.8E+01	n	1.0E+03	n					5.8E+00	n		1.1E-01	
				1.0E-03	I			V		1		6.2E+03	~Furan	110-00-9	7.8E+01	n	1.0E+03	n					1.5E+01	n		5.7E-03	
				9.0E-01	I	2.0E+00	I	V		1	0.1	1.7E+05	~Tetrahydrofuran	109-99-9	1.8E+04	n	9.5E+04	n	2.1E+03	n	8.8E+03	n	3.2E+03	n		7.1E-01	
3.8E+00	H									1	0.1		Furazolidone	67-45-8	1.3E-01	c	4.5E-01	c					1.8E-02	c		3.4E-05	
				3.0E-03	I	5.0E-02	H			1	0.1		Furfural	98-01-1	1.8E+02	n	1.8E+03	n	5.2E+01	n	2.2E+02	n	4.6E+01	n		9.9E-03	
1.5E+00	C	4.3E-04	C							1	0.1		Furium	531-82-8	3.2E-01	c	1.1E+00	c	5.7E-03	c	2.9E-02	c	4.4E-02	c		5.9E-05	
3.0E-02	I	8.6E-06	C							1	0.1		Furmecyclox	60568-05-0	1.6E+01	c	5.7E+01	c	2.8E-01	c	1.4E+00	c	9.6E-01	c		1.0E-03	
				4.0E-04	I					1	0.1		Glufosinate, Ammonium	77182-82-2	2.4E+01	n	2.5E+02	n					6.3E+00	n		1.4E-03	
						8.0E-05	C			1	0.1		Glutaraldehyde	111-30-8	1.1E+05	nm	4.8E+05	nm	8.3E-02	n	3.5E-01	n					
				4.0E-04	I	1.0E-03	H			1	0.1		Glycidyl	765-34-4	2.4E+01	n	2.5E+02	n	1.0E+00	n	4.4E+00	n	6.2E+00	n		1.3E-03	
				1.0E-01	I					1	0.1		Glyphosate	1071-83-6	6.1E+03	n	6.2E+04	n					1.6E+03	n	7.0E+02	3.2E-01	1.4E-01
				3.0E-03	I					1	0.1		Goal	42874-03-3	1.8E+02	n	1.8E+03	n					2.4E+01	n		1.9E+00	
				3.0E-03	A	1.0E-02	A			1	0.1		Guthion	86-50-0	1.8E+02	n	1.8E+03	n	1.0E+01	n	4.4E+01	n	4.3E+01	n		1.3E-02	
				5.0E-05	I					1	0.1		Haloxyfop, Methyl	69806-40-2	3.1E+00	n	3.1E+01	n					5.8E-01	n		6.4E-03	
				1.3E-02	I					1	0.1		Harmony	79277-27-3	7.9E+02	n	8.0E+03	n					2.0E+02	n		6.1E-02	
4.5E+00	I	1.3E-03	I	5.0E-04	I					1	0.1		Heptachlor	76-44-8	1.1E-01	c	3.8E-01	c	1.9E-03	c	9.4E-03	c	1.8E-03	c	4.0E-01	1.4E-04	3.3E-02
9.1E+00	I	2.6E-03	I	1.3E-05	I					1	0.1		Heptachlor Epoxide	1024-57-3	5.3E-02	c*	1.9E-01	c*	9.4E-04	c	4.7E-03	c	3.3E-03	c*	2.0E-01	6.8E-05	4.1E-03
				2.0E-03	I					1	0.1		Hexabromobenzene	87-82-1	1.2E+02	n	1.2E+03	n					3.1E+01	n		1.8E-01	
				2.0E-04	I					1	0.1		Hexabromodiphenyl ether, 2,2',4,4',5,5'- (BDE-153)	68631-49-2	1.2E+01	n	1.2E+02	n					3.1E+00	n			
1.6E+00	I	4.6E-04	I	8.0E-04	I					1	0.1		Hexachlorobenzene	118-74-1	3.0E-01	c	1.1E+00	c	5.3E-03	c	2.7E-02	c	4.2E-02	c	1.0E+00	5.3E-04	1.3E-02
7.8E-02	I	2.2E-05	I	1.0E-03	P					1	0.1		Hexachlorobutadiene	87-68-3	6.2E+00	c**	2.2E+01	c*	1.1E-01	c	5.6E-01	c	2.6E-01	c*		5.0E-04	
6.3E+00	I	1.8E-03	I	8.0E-03	A					1	0.1		Hexachlorocyclohexane, Alpha-	319-84-6	7.7E-02	c	2.7E-01	c	1.4E-03	c	6.8E-03	c	6.2E-03	c		3.6E-05	
1.8E+00	I	5.3E-04	I							1	0.1		Hexachlorocyclohexane, Beta-	319-85-7	2.7E-01	c	9.6E-01	c	4.6E-03	c	2.3E-02	c	2.2E-02	c		1.3E-04	
1.1E+00	C	3.1E-04	C	3.0E-04	I					1	0.04		Hexachlorocyclohexane, Gamma- (Lindane)	58-89-9	5.2E-01	c*	2.1E+00	c	7.8E-03	c	4.0E-02	c	3.6E-02	c*	2.0E-01	2.1E-04	1.2E-03
1.8E+00	I	5.1E-04	I							1	0.1		Hexachlorocyclohexane, Technical	608-73-1	2.7E-01	c	9.6E-01	c	4.8E-03	c	2.4E-02	c	2.2E-02	c		1.3E-04	
				6.0E-03	I	2.0E-04	I			1	0.1		Hexachlorocyclopentadiene	77-47-4	3.7E+02	n	3.7E+03	n	2.1E-01	n	8.8E-01	n	2.2E+01	n	5.0E+01	7.0E-02	1.6E-01
4.0E-02	I	1.1E-05	C	7.0E-04	I	3.0E-02	I			1	0.1		Hexachloroethane	67-72-1	1.2E+01	c**	4.3E+01	c*	2.2E-01	c	1.1E+00	c	7.9E-01	c**		4.8E-04	
				3.0E-04	I					1	0.1		Hexachlorophene	70-30-4	1.8E+01	n	1.8E+02	n					4.7E+00	n		6.3E+00	
1.1E-01	I			3.0E-03	I					1	0.015		Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	5.6E+00	c*	2.4E+01	c					6.1E-01	c*		2.3E-04	
						1.0E-05	I	V		1		5.2E+03	Hexamethylene Diisocyanate, 1,6-	822-06-0	3.4E+00	n	1.4E+01	n	1.0E-02	n	4.4E-02	n	2.1E-02	n		2.1E-04	
				4.0E-04	P					1	0.1		Hexamethylphosphoramide	680-31-9	2.4E+01	n	2.5E+02	n					6.2E+00	n		1.4E-03	
				6.0E-02	H	7.0E-01	I	V		1		1.4E+02	Hexane, N-	110-54-3	5.7E+02	ns	2.6E+03	ns	7.3E+02	n	3.1E+03	n	2.5E+02	n		1.8E+00	
				2.0E+00	P					1	0.1		Hexanedioic Acid	124-04-9	1.2E+05	nm	1.2E+06	nm					3.1E+04	n		7.7E+00	
				5.0E-03	I	3.0E-02	I	V		1		3.3E+03	Hexanone, 2-	591-78-6	2.1E+02	n	1.4E+03	n	3.1E+01	n	1.3E+02	n	3.4E+01	n		7.9E-03	
				3.3E-02	I					1	0.1		Hexazinone	51235-04-2	2.0E+03	n	2.0E+04	n					5.0E+02	n		2.3E-01	
3.0E+00	I	4.9E-03	I			3.0E-05	P			1			Hydrazine	302-01-2	2.1E-01	c	9.5E-01	c	5.0E-04	c*	2.5E-03	c*	2.2E-02	c			
3.0E+00	I	4.9E-03	I							1			Hydrazine Sulfate	10034-93-2	2.1E-01	c	9.5E-01	c	5.0E-04	c	2.5E-03	c	2.2E-02	c			
						2.0E-02	I			1			Hydrogen Chloride	7647-01-0	2.8E+07	nm	1.2E+08	nm	2.1E+01	n	8.8E+01	n					
				4.0E-02	C	1.4E-02	C			1			Hydrogen Fluoride	7664-39-3	3.1E+03	n	4.1E+04	n	1.5E+01	n	6.1E+01	n	6.2E+02	n			
						2.0E-03	I			1			Hydrogen Sulfide	7783-06-4	2.8E+06	nm	1.2E+07	nm	2.1E+00	n	8.8E+00	n					
6.0E-02	P			4.0E-02	P					1	0.1		Hydroquinone	123-31-9	8.1E+00	c	2.9E+01	c					1.1E+00	c		7.5E-04	
				1.3E-02	I					1	0.1		Imazalil	35554-44-0	7.9E+02	n	8.0E+03	n					1.4E+02	n		2.5E+00	
				2.5E-01	I					1	0.1		Imazaquin	81335-37-7	1.5E+04	n	1.5E+05	nm					3.8E+03	n		1.9E+01	
				1.0E-02	A					1			Iodine	7553-56-2	7.8E+02	n	1.0E+04	n					1.6E+02	n		9.4E+00	
				4.0E-02	I					1	0.1		Iprodione	36734-19-7	2.4E+03	n	2.5E+04	n					5.7E+02	n		1.7E-01	
				7.0E-01	P					1			Iron	7439-89-6	5.5E+04	n	7.2E+05	nm					1.1E+04	n		2.7E+02	
				3.0E-01	I					1	0.1		Isobutyl Alcohol	78-83-1	1.8E+04	n	1.8E+05	nm					4.6E+03	n		9.5E-01	
9.5E-04	I			2.0E-01	I	2.0E+00	C			1	0.1		Isophorone	78-59-1	5.1E+02	c*	1.8E+03	c*	2.1E+03	n	8.8E+03	n	6.7E+01	c*		2.2E-02	
				1.5E-02	I					1	0.1		Isopropalin	33820-53-0	9.2E+02	n	9.2E+03	n					2.9E+01	n		6.6E-01	
						7.0E+00	C			1	0.1		Isopropanol	67-63-0	9.9E+09	nm	4.2E+10	nm	7.3E+03	n	3.1E+04	n					
				1.0E-01	I					1	0.1		Isopropyl Methyl Phosphonic Acid	1832-54-8	6.1E+03	n	6.2E+04	n					1.6E+03	n		3.4E-01	
				5.0E-02	I					1	0.1		Isoxaben	82558-50-7	3.1E+03	n	3.1E+04	n					5.6E+02	n		1.5E+00	
						3.0E-01	A	V		1			JP-7	NA	4.3E+08	nm	1.8E+09	nm	3.1E+02	n	1.3E+03	n	6.3E+02	n			
				7.5E-02	I					1	0.1		Kerb	23950-58-5	4.6E+03	n	4.6E+04	n					9.0E+02	n		9.1E-01	
				2.0E-03	I					1	0.1		Lactofen	77501-63-4	1.2E+02	n	1.2E+03	n					1.9E+01	n		8.7E-01	
													Lead Compounds														
2.8E-01	C	8.0E-05	C							1	0.1		~Lead acetate	301-04-2	1.7E+00	c	6.2E+00	c	3.0E-02	c	1.5E-01	c	2.4E-01	c			
										1			~Lead and Compounds	7439-92-1	4.0E+02	L	8.0E+02	L	1.5E-01	L		L		L	1.5E+01		1.4E+01

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Toxicity and Chemical-specific Information														Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
3.8E-02	C	1.1E-05	C							1	0.1		~Lead subacetate	1335-32-6	1.3E+01	c	4.5E+01	c	2.2E-01	c	1.1E+00	c	1.8E+00	c			
				1.0E-07	I					1	0.1		~Tetraethyl Lead	78-00-2	6.1E-03	n	6.2E-02	n					9.9E-04	n		3.5E-06	
				2.0E-03	I					1	0.1		Linuron	330-55-2	1.2E+02	n	1.2E+03	n					2.6E+01	n		2.3E-02	
				2.0E-03	P					1			Lithium	7439-93-2	1.6E+02	n	2.0E+03	n					3.1E+01	n		9.3E+00	
				2.0E-01	I					1	0.1		Londax	83055-99-6	1.2E+04	n	1.2E+05	nm					3.1E+03	n		7.9E-01	
				5.0E-04	I					1	0.1		MCPA	94-74-6	3.1E+01	n	3.1E+02	n					5.7E+00	n		1.5E-03	
				1.0E-02	I					1	0.1		MCPB	94-81-5	6.1E+02	n	6.2E+03	n					1.1E+02	n		4.4E-02	
				1.0E-03	I					1	0.1		MCPP	93-65-2	6.1E+01	n	6.2E+02	n					1.2E+01	n		3.5E-03	
				2.0E-02	I					1	0.1		Malathion	121-75-5	1.2E+03	n	1.2E+04	n					3.0E+02	n		7.9E-02	
				1.0E-01	I	7.0E-04	C			1	0.1		Maleic Anhydride	108-31-6	6.1E+03	n	6.1E+04	n	7.3E-01	n	3.1E+00	n	1.5E+03	n		3.0E-01	
				5.0E-01	I					1	0.1		Maleic Hydrazide	123-33-1	3.1E+04	n	3.1E+05	nm					7.8E+03	n		1.6E+00	
				1.0E-04	P					1	0.1		Malononitrile	109-77-3	6.1E+00	n	6.2E+01	n					1.6E+00	n		3.2E-04	
				3.0E-02	H					1	0.1		Mancozeb	8018-01-7	1.8E+03	n	1.8E+04	n					4.6E+02	n		6.5E-01	
				5.0E-03	I					1	0.1		Maneb	12427-38-2	3.1E+02	n	3.1E+03	n					7.7E+01	n		1.1E-01	
				1.4E-01	I	5.0E-05	I			1			Manganese (Diet)	7439-96-5													
				2.4E-02	S	5.0E-05	I			0.04			Manganese (Non-diet)	7439-96-5	1.8E+03	n	2.3E+04	n	5.2E-02	n	2.2E-01	n	3.2E+02	n		2.1E+01	
				9.0E-05	H					1	0.1		Mephosfolan	950-10-7	5.5E+00	n	5.5E+01	n					1.4E+00	n		2.1E-03	
				3.0E-02	I					1	0.1		Mepiquat Chloride	24307-26-4	1.8E+03	n	1.8E+04	n					4.7E+02	n		1.6E-01	
													Mercury Compounds															
				3.0E-04	I	3.0E-04	S			0.07			~Mercuric Chloride (and other Mercury salts)	7487-94-7	2.3E+01	n	3.1E+02	n	3.1E-01	n	1.3E+00	n	4.3E+00	n	2.0E+00		
						3.0E-04	I	V		1		3.1E+00	~Mercury (elemental)	7439-97-6	1.0E+01	ns	4.3E+01	ns	3.1E-01	n	1.3E+00	n	6.3E-01	n	2.0E+00	3.3E-02	1.0E-01
				1.0E-04	I					1			~Methyl Mercury	22967-92-6	7.8E+00	n	1.0E+02	n					1.6E+00	n			
				8.0E-05	I					1	0.1		~Phenylmercuric Acetate	62-38-4	4.9E+00	n	4.9E+01	n					1.2E+00	n		3.9E-04	
				3.0E-05	I					1	0.1		Merphos	150-50-5	1.8E+00	n	1.8E+01	n					4.7E-01	n		4.6E-02	
				3.0E-05	I					1	0.1		Merphos Oxide	78-48-8	1.8E+00	n	1.8E+01	n					6.1E-02	n		3.0E-04	
				6.0E-02	I					1	0.1		Metalaxyl	57837-19-1	3.7E+03	n	3.7E+04	n					9.2E+02	n		2.5E-01	
				1.0E-04	I	3.0E-02	P	V		1		4.6E+03	Methacrylonitrile	126-98-7	7.6E+00	n	9.2E+01	n	3.1E+01	n	1.3E+02	n	1.5E+00	n		3.4E-04	
				5.0E-05	I					1	0.1		Methamidophos	10265-92-6	3.1E+00	n	3.1E+01	n					7.8E-01	n		1.6E-04	
				5.0E-01	I	4.0E+00	C			1	0.1		Methanol	67-56-1	3.1E+04	n	3.1E+05	nm	4.2E+03	n	1.8E+04	n	7.8E+03	n		1.6E+00	
				1.0E-03	I					1	0.1		Methidathion	950-37-8	6.1E+01	n	6.2E+02	n					1.5E+01	n		3.7E-03	
				2.5E-02	I					1	0.1		Methomyl	16752-77-5	1.5E+03	n	1.5E+04	n					3.9E+02	n		8.5E-02	
4.9E-02	C	1.4E-05	C							1	0.1		Methoxy-5-nitroaniline, 2-	99-59-2	9.9E+00	c	3.5E+01	c	1.7E-01	c	8.8E-01	c	1.3E+00	c		4.6E-04	
				5.0E-03	I					1	0.1		Methoxychlor	72-43-5	3.1E+02	n	3.1E+03	n					2.7E+01	n	4.0E+01	1.5E+00	2.2E+00
				8.0E-03	P	1.0E-03	P			1	0.1		Methoxyethanol Acetate, 2-	110-49-6	4.9E+02	n	4.9E+03	n	1.0E+00	n	4.4E+00	n	1.2E+02	n		2.6E-02	
				5.0E-03	P	2.0E-02	I			1	0.1		Methoxyethanol, 2-	109-86-4	3.1E+02	n	3.1E+03	n	2.1E+01	n	8.8E+01	n	7.8E+01	n		1.6E-02	
				1.0E+00	X			V		1		2.9E+04	Methyl Acetate	79-20-9	7.8E+04	ns	1.0E+06	nms					1.6E+04	n		3.2E+00	
				3.0E-02	H	2.0E-02	P	V		1		6.8E+03	Methyl Acrylate	96-33-3	1.5E+02	n	6.4E+02	n	2.1E+01	n	8.8E+01	n	3.8E+01	n		8.1E-03	
				6.0E-01	I	5.0E+00	I	V		1		2.8E+04	Methyl Ethyl Ketone (2-Butanone)	78-93-3	2.8E+04	n	2.0E+05	nms	5.2E+03	n	2.2E+04	n	4.9E+03	n		1.0E+00	
		1.0E-03	X	1.0E-03	P	2.0E-05	X			1	0.1		Methyl Hydrazine	60-34-4	6.1E+01	n	6.1E+02	n	2.4E-03	c**	1.2E-02	c**	1.6E+01	n		3.5E-03	
				8.0E-02	H	3.0E+00	I	V		1		3.4E+03	Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	5.3E+03	ns	5.3E+04	ns	3.1E+03	n	1.3E+04	n	1.0E+03	n		2.3E-01	
						1.0E-03	C	V		1	0.1	1.7E+04	Methyl Isocyanate	624-83-9	5.0E+00	n	2.1E+01	n	1.0E+00	n	4.4E+00	n	2.1E+00	n		5.9E-04	
				1.4E+00	I	7.0E-01	I	V		1		2.4E+03	Methyl Methacrylate	80-62-6	4.8E+03	ns	2.1E+04	ns	7.3E+02	n	3.1E+03	n	1.4E+03	n		3.0E-01	
				2.5E-04	I					1	0.1		Methyl Parathion	298-00-0	1.5E+01	n	1.5E+02	n					3.4E+00	n		5.7E-03	
				6.0E-02	X					1	0.1		Methyl Phosphonic Acid	993-13-5	3.7E+03	n	3.7E+04	n					9.4E+02	n		1.9E-01	
				6.0E-03	H	4.0E-02	H	V		1		3.9E+02	Methyl Styrene (Mixed Isomers)	25013-15-4	2.4E+02	n	1.5E+03	ns	4.2E+01	n	1.8E+02	n	3.2E+01	n		5.2E-02	
9.9E-02	C	2.8E-05	C							1	0.1		Methyl methanesulfonate	66-27-3	4.9E+00	c	1.7E+01	c	8.7E-02	c	4.4E-01	c	6.8E-01	c		1.4E-04	
1.8E-03	C	2.6E-07	C			3.0E+00	I	V		1		8.9E+03	Methyl tert-Butyl Ether (MTBE)	1634-04-4	4.3E+01	c	2.2E+02	c	9.4E+00	c	4.7E+01	c	1.2E+01	c		2.8E-03	
				2.0E-04	X					1	0.1		Methyl-1,4-benzenediamine dihydrochloride, 2-	615-45-2	1.2E+01	n	1.2E+02	n					3.1E+00	n		1.9E-03	
9.0E-03	P			2.0E-02	X					1	0.1		Methyl-5-Nitroaniline, 2-	99-55-8	5.4E+01	c*	1.9E+02	c*					7.0E+00	c*		3.9E-03	
8.3E+00	C	2.4E-03	C							1	0.1		Methyl-N-nitro-N-nitrosoguanidine, N-	70-25-7	5.9E-02	c	2.1E-01	c	1.0E-03	c	5.1E-03	c	8.1E-03	c		2.8E-06	
1.3E-01	C	3.7E-05	C							1	0.1		Methylaniline Hydrochloride, 2-	636-21-5	3.7E+00	c	1.3E+01	c	6.6E-02	c	3.3E-01	c	5.0E-01	c		2.1E-04	
				1.0E-02	A					1	0.1		Methylarsonic acid	124-58-3	6.1E+02	n	6.2E+03	n					1.6E+02	n			
				2.0E-04	X					1	0.1		Methylbenzene,1-4-diamine monohydrochloride, 2-	74612-12-7	1.2E+01	n	1.2E+02	n					3.1E+00	n			
				2.0E-04	X					1	0.1		Methylbenzene-1,4-diamine sulfate, 2-	615-50-9	1.2E+01	n	1.2E+02	n					3.1E+00	n			
2.2E+01	C	6.3E-03	C						M	1	0.1		Methylcholanthrene, 3-	56-49-5	5.2E-03	c	7.8E-02	c	1.5E-04	c	1.9E-03	c	9.8E-04	c		1.9E-03	
2.0E-03	I	1.0E-08	I	6.0E-03	I	6.0E-01	I	V	M	1		3.3E+03	Methylene Chloride	75-09-2	5.6E+01	c**	9.6E+02	c**	9.6E+01	c**	1.2E+03	c**	9.9E+00	c**	5.0E+00	2.5E-03	1.3E-03
1.0E-01	P	4.3E-04	C	2.0E-03	P				M	1	0.1		Methylene-bis(2-chloroaniline), 4,4'-	101-14-4	1.2E+00	c	1.7E+01	c*	2.2E-03	c	2.9E-02	c	1.4E-01	c		1.6E-03	
4.6E-02	I	1.3E-05	C							1	0.1		Methylene-bis(N,N-dimethyl) Aniline, 4,4'-	101-61-1	1.1E+01	c	3.7E+01	c	1.9E-01	c	9.4E-01	c	4.1E-01	c		2.3E-03	
1.6E+00	C	4.6E-04	C			2.0E-02	C			1	0.1		Methylenebisbenzenamine, 4,4'-	101-77-9	3.0E-01	c	1.1E+00	c	5.3E-03	c	2.7E-02	c	4.1E-02	c		1.8E-04	
						6.0E-04	I			1	0.1		Methylenediphenyl Diisocyanate	101-68-8	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n					
				7.0E-02	H			V		1		5.0E+02	Methylstyrene, Alpha-	98-83-9	5.5E+03	ns	7.2E+04	ns					5.8E+02	n		9.3E-01	
				1.5E-01	I					1	0.1		Metolachlor	51218-45-2	9.2E+03	n	9.2E+04	n					2.1E+03	n		2.5E+00	
				2.5E-02	I					1	0.1		Metribuzin	21087-64-9	1.5E+03	n	1.5E+04	n					3.8E+02	n		1.2E-01	
				3.0E+00	P			V		1	0.1	3.4E-01	Mineral oils	8012-95-1	1.8E+05	nms	1.8E+06	nms					4.7E+04	n		1.9E+03	
1.8E+01	C	5.1E-03	C	2.0E-04	I					1	0.1		Mirex	2385-85-5	2.7E-02	c	9.6E-02	c	4.8E-04	c	2.4E-03	c	3.7E-03	c		2.7E-03	

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Toxicity and Chemical-specific Information														Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				2.0E-03	I					1	0.1		Molinate	2212-67-1	1.2E+02	n	1.2E+03	n					2.3E+01	n		1.3E-02	
				5.0E-03	I					1			Molybdenum	7439-98-7	3.9E+02	n	5.1E+03	n					7.8E+01	n		1.6E+00	
				1.0E-01	I					1			Monochloramine	10599-90-3	7.8E+03	n	1.0E+05	nm					1.6E+03	n	4.0E+03		
				2.0E-03	P					1	0.1		Monomethylaniline	100-61-8	1.2E+02	n	1.2E+03	n					3.0E+01	n		1.1E-02	
				3.0E-04	X					1	0.1		N,N'-Diphenyl-1,4-benzenediamine	74-31-7	1.8E+01	n	1.8E+02	n					2.7E+00	n		2.8E-01	
				2.0E-03	I					1	0.1		Naled	300-76-5	1.2E+02	n	1.2E+03	n					3.1E+01	n		1.4E-02	
				3.0E-02	X	1.0E-01	P	V		1			Naphtha, High Flash Aromatic (HFAN)	64724-95-6	2.3E+03	n	3.1E+04	n	1.0E+02	n	4.4E+02	n	1.4E+02	n			
1.8E+00	C	0.0E+00	C							1	0.1		Naphthylamine, 2-	91-59-8	2.7E-01	c	9.6E-01	c					3.3E-02	c		1.7E-04	
				1.0E-01	I					1	0.1		Napropamide	15299-99-7	6.1E+03	n	6.2E+04	n					1.3E+03	n		8.3E+00	
				5.0E-02	C	5.0E-05	C			0.04			Nickel Carbonyl	13463-39-3	3.7E+03	n	4.4E+04	n	5.2E-02	n	2.2E-01	n	6.7E+02	n			
				5.0E-02	C	1.0E-04	C			1			Nickel Oxide	1313-99-1	3.8E+03	n	4.7E+04	n	1.0E-01	n	4.4E-01	n	7.8E+02	n			
		2.4E-04	I	5.0E-02	C	5.0E-05	C			0.04			Nickel Refinery Dust	NA	3.7E+03	n	4.4E+04	n	1.0E-02	c**	5.1E-02	c**	7.6E+02	n		1.1E+02	
		2.6E-04	C	2.0E-02	I	9.0E-05	A			0.04			Nickel Soluble Salts	7440-02-0	1.5E+03	n	2.0E+04	n	9.4E-03	c*	4.7E-02	c**	3.0E+02	n		2.0E+01	
1.7E+00	C	4.8E-04	I	5.0E-02	C	5.0E-05	C			0.04			Nickel Subsulfide	12035-72-2	3.8E-01	c	1.7E+00	c	5.1E-03	c*	2.6E-02	c**	3.9E-02	c			
				1.6E+00	I					1			Nitrate	14797-55-8	1.3E+05	nm	1.6E+06	nm					2.5E+04	n	1.0E+04		
										1			Nitrate + Nitrite (as N)	NA											1.0E+04		
				1.0E-01	I					1			Nitrite	14797-65-0	7.8E+03	n	1.0E+05	nm					1.6E+03	n	1.0E+03		
				1.0E-02	X	5.0E-05	X			1	0.1		Nitroaniline, 2-	88-74-4	6.1E+02	n	6.0E+03	n	5.2E-02	n	2.2E-01	n	1.5E+02	n		6.2E-02	
2.0E-02	P			4.0E-03	P	6.0E-03	P			1	0.1		Nitroaniline, 4-	100-01-6	2.4E+01	c*	8.6E+01	c*	6.3E+00	n	2.6E+01	n	3.3E+00	c*		1.4E-03	
		4.0E-05	I	2.0E-03	I	9.0E-03	I	V		1		3.1E+03	Nitrobenzene	98-95-3	4.8E+00	c*	2.4E+01	c*	6.1E-02	c	3.1E-01	c	1.2E-01	c*		7.9E-05	
				3.0E+03	P					1	0.1		Nitrocellulose	9004-70-0	1.8E+08	nm	1.8E+09	nm					4.7E+07	n		1.0E+04	
				7.0E-02	H					1	0.1		Nitrofurantoin	67-20-9	4.3E+03	n	4.3E+04	n					1.1E+03	n		4.7E-01	
1.3E+00	C	3.7E-04	C							1	0.1		Nitrofurazone	59-87-0	3.7E-01	c	1.3E+00	c	6.6E-03	c	3.3E-02	c	5.2E-02	c		4.6E-05	
1.7E-02	P			1.0E-04	P					1	0.1		Nitroglycerin	55-63-0	6.1E+00	n	6.2E+01	n					1.5E+00	n		6.6E-04	
				1.0E-01	I					1	0.1		Nitroguanidine	556-88-7	6.1E+03	n	6.2E+04	n					1.6E+03	n		3.8E-01	
		9.0E-06	P			2.0E-02	P	V		1		1.8E+04	Nitromethane	75-52-5	4.9E+00	c*	2.5E+01	c*	2.7E-01	c*	1.4E+00	c*	5.4E-01	c*		1.2E-04	
		2.7E-03	H			2.0E-02	I	V		1		4.9E+03	Nitropropane, 2-	79-46-9	1.3E-02	c	6.4E-02	c	9.0E-04	c	4.5E-03	c	1.8E-03	c		4.7E-07	
2.7E+01	C	7.7E-03	C						M	1	0.1		Nitroso-N-ethylurea, N-	759-73-9	4.3E-03	c	6.4E-02	c	1.2E-04	c	1.6E-03	c	7.9E-04	c		1.9E-07	
1.2E+02	C	3.4E-02	C						M	1	0.1		Nitroso-N-methylurea, N-	684-93-5	9.6E-04	c	1.4E-02	c	2.8E-05	c	3.6E-04	c	1.8E-04	c		4.0E-08	
5.4E+00	I	1.6E-03	I					V		1			Nitroso-di-N-butylamine, N-	924-16-3	8.7E-02	c	4.0E-01	c	1.5E-03	c	7.7E-03	c	2.4E-03	c		4.8E-06	
7.0E+00	I	2.0E-03	C							1	0.1		Nitroso-di-N-propylamine, N-	621-64-7	6.9E-02	c	2.5E-01	c	1.2E-03	c	6.1E-03	c	9.3E-03	c		7.0E-06	
2.8E+00	I	8.0E-04	C							1	0.1		Nitrosodiethanolamine, N-	1116-54-7	1.7E-01	c	6.2E-01	c	3.0E-03	c	1.5E-02	c	2.4E-02	c		4.8E-06	
1.5E+02	I	4.3E-02	I						M	1	0.1		Nitrosodiethylamine, N-	55-18-5	7.7E-04	c	1.1E-02	c	2.2E-05	c	2.9E-04	c	1.4E-04	c		5.2E-08	
5.1E+01	I	1.4E-02	I	8.0E-06	P	4.0E-05	X		M	1	0.1		Nitrosodimethylamine, N-	62-75-9	2.3E-03	c	3.4E-02	c	6.9E-05	c	8.8E-04	c	4.2E-04	c		1.0E-07	
4.9E-03	I	2.6E-06	C							1	0.1		Nitrosodiphenylamine, N-	86-30-6	9.9E+01	c	3.5E+02	c	9.4E-01	c	4.7E+00	c	1.0E+01	c		5.7E-02	
2.2E+01	I	6.3E-03	C							1	0.1		Nitrosomethylethylamine, N-	10595-95-6	2.2E-02	c	7.8E-02	c	3.9E-04	c	1.9E-03	c	3.0E-03	c		8.7E-07	
6.7E+00	C	1.9E-03	C							1	0.1		Nitrosomorpholine [N-]	59-89-2	7.3E-02	c	2.6E-01	c	1.3E-03	c	6.5E-03	c	1.0E-02	c		2.5E-06	
9.4E+00	C	2.7E-03	C							1	0.1		Nitrosopiperidine [N-]	100-75-4	5.2E-02	c	1.8E-01	c	9.0E-04	c	4.5E-03	c	7.1E-03	c		3.8E-06	
2.1E+00	I	6.1E-04	I							1	0.1		Nitrosopyrrolidine, N-	930-55-2	2.3E-01	c	8.2E-01	c	4.0E-03	c	2.0E-02	c	3.2E-02	c		1.2E-05	
				1.0E-04	X					1	0.1		Nitrotoluene, m-	99-08-1	6.1E+00	n	6.2E+01	n					1.3E+00	n		1.2E-03	
2.2E-01	P			9.0E-04	P			V		1		1.5E+03	Nitrotoluene, o-	88-72-2	2.9E+00	c*	1.3E+01	c*					2.7E-01	c*		2.5E-04	
1.6E-02	P			4.0E-03	P					1	0.1		Nitrotoluene, p-	99-99-0	3.0E+01	c**	1.1E+02	c*					3.7E+00	c*		3.4E-03	
				3.0E-04	X	2.0E-01	P	V		1		6.9E+00	Nonane, n-	111-84-2	2.1E+01	ns	2.3E+02	ns	2.1E+02	n	8.8E+02	n	4.6E+00	n		6.6E-02	
				4.0E-02	I					1	0.1		Norflurazon	27314-13-2	2.4E+03	n	2.5E+04	n					6.0E+02	n		3.9E+00	
				7.0E-04	I					1	0.1		Nustar	85509-19-9	4.3E+01	n	4.3E+02	n					8.3E+00	n		1.4E+00	
				3.0E-03	I					1	0.1		Octabromodiphenyl Ether	32536-52-0	1.8E+02	n	1.8E+03	n					4.7E+01	n		9.3E+00	
				5.0E-02	I					1	0.006		Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra (HMX)	2691-41-0	3.8E+03	n	4.9E+04	n					7.8E+02	n		9.9E-01	
				2.0E-03	H					1	0.1		Octamethylpyrophosphoramide	152-16-9	1.2E+02	n	1.2E+03	n					3.1E+01	n		7.5E-03	
				1.2E-02	P					1	0.1		Octyl Phthalate, di-N-	117-84-0	7.3E+02	n	7.4E+03	n					1.9E+02	n		5.3E+01	
				5.0E-02	I					1	0.1		Oryzalin	19044-88-3	3.1E+03	n	3.1E+04	n					6.2E+02	n		1.1E+00	
				5.0E-03	I					1	0.1		Oxadiazon	19666-30-9	3.1E+02	n	3.1E+03	n					3.5E+01	n		3.6E-01	
				2.5E-02	I					1	0.1		Oxamyl	23135-22-0	1.5E+03	n	1.5E+04	n					3.9E+02	n	2.0E+02	8.6E-02	4.4E-02
				1.3E-02	I					1	0.1		Paclobutrazol	76738-62-0	7.9E+02	n	8.0E+03	n					1.7E+02	n		3.6E-01	
				4.5E-03	I					1	0.1		Paraquat Dichloride	1910-42-5	2.7E+02	n	2.8E+03	n					7.0E+01	n		9.7E-01	
				6.0E-03	H					1	0.1		Parathion	56-38-2	3.7E+02	n	3.7E+03	n					6.5E+01	n		3.3E-01	
				5.0E-02	H					1	0.1		Pebulate	1114-71-2	3.1E+03	n	3.1E+04	n					4.2E+02	n		3.3E-01	
				4.0E-02	I					1	0.1		Pendimethalin	40487-42-1	2.4E+03	n	2.5E+04	n					1.3E+02	n		1.5E+00	
				2.0E-03	I					1	0.1		Pentabromodiphenyl Ether	32534-81-9	1.2E+02	n	1.2E+03	n					3.1E+01	n		1.4E+00	
				1.0E-04	I					1	0.1		Pentabromodiphenyl ether, 2,2',4,4',5- (BDE-99)	60348-60-9	6.1E+00	n	6.2E+01	n					1.6E+00	n		6.8E-02	
				8.0E-04	I					1	0.1		Pentachlorobenzene	608-93-5	4.9E+01	n	4.9E+02	n					2.3E+00	n		1.7E-02	
9.0E-02	P									1	0.1		Pentachloroethane	76-01-7	5.4E+00	c	1.9E+01	c					5.6E-01	c		2.7E-04	
2.6E-01	H			3.0E-03	I					1	0.1		Pentachloronitrobenzene	82-68-8	1.9E+00	c*	6.6E+00	c					1.0E-01	c		1.3E-03	
4.0E-01	I	5.1E-06	C	5.0E-03	I					1	0.25		Pentachlorophenol	87-86-5	8.9E-01	c	2.7E+00	c	4.8E-01	c	2.4E+00	c	3.5E-02	c	1.0E+00	3.6E-04	1.0E-02
4.0E-03	X			2.0E-03	P					1	0.1		Pentaerythritol tetranitrate (PETN)	78-11-5	1.2E+02	c**	4.3E+02	c**					1.6E+01	c**		2.4E-02	
						1.0E+00	P	V		1		3.9E+02	Pentane, n-	109-66-0	8.7E+02	ns	3.7E+03	ns	1.0E+03	n	4.4E+03	n	2.1E+03	n		1.0E+01	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information														Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				7.0E-04	I					1			**Perchlorates**															
				7.0E-04	I					1			~Ammonium Perchlorate	7790-98-9	5.5E+01	n	7.2E+02	n					1.1E+01	n			
				7.0E-04	I					1			~Lithium Perchlorate	7791-03-9	5.5E+01	n	7.2E+02	n					1.1E+01	n			
				7.0E-04	I					1			~Perchlorate and Perchlorate Salts	14797-73-0	5.5E+01	n	7.2E+02	n					1.1E+01	n	1.5E+01(F)		
				7.0E-04	I					1			~Potassium Perchlorate	7778-74-7	5.5E+01	n	7.2E+02	n					1.1E+01	n			
				7.0E-04	I					1			~Sodium Perchlorate	7601-89-0	5.5E+01	n	7.2E+02	n					1.1E+01	n			
				5.0E-02	I					1	0.1		Permethrin	52645-53-1	3.1E+03	n	3.1E+04	n					7.8E+02	n		1.9E+02	
2.2E-03	C	6.3E-07	C							1	0.1		Phenacetin	62-44-2	2.2E+02	c	7.8E+02	c	3.9E+00	c	1.9E+01	c	3.0E+01	c		8.3E-03	
				2.5E-01	I					1	0.1		Phenmedipham	13684-63-4	1.5E+04	n	1.5E+05	nm					3.0E+03	n		1.6E+01	
				3.0E-01	I	2.0E-01	C			1	0.1		Phenol	108-95-2	1.8E+04	n	1.8E+05	nm	2.1E+02	n	8.8E+02	n	4.5E+03	n		2.6E+00	
				5.0E-04	X					1	0.1		Phenothiazine	92-84-2	3.1E+01	n	3.1E+02	n					3.2E+00	n		1.0E-02	
				6.0E-03	I					1	0.1		Phenylenediamine, m-	108-45-2	3.7E+02	n	3.7E+03	n					9.4E+01	n		2.5E-02	
4.7E-02	H									1	0.1		Phenylenediamine, o-	95-54-5	1.0E+01	c	3.7E+01	c					1.4E+00	c		3.8E-04	
				1.9E-01	H					1	0.1		Phenylenediamine, p-	106-50-3	1.2E+04	n	1.2E+05	nm					3.0E+03	n		7.9E-01	
1.9E-03	H									1	0.1		Phenylphenol, 2-	90-43-7	2.5E+02	c	8.9E+02	c					2.6E+01	c		3.5E-01	
				2.0E-04	H					1	0.1		Phorate	298-02-2	1.2E+01	n	1.2E+02	n					2.3E+00	n		2.6E-03	
						3.0E-04	I	V		1		1.6E+03	Phosgene	75-44-5	3.3E-01	n	1.4E+00	n	3.1E-01	n	1.3E+00	n					
				2.0E-02	I					1	0.1		Phosmet	732-11-6	1.2E+03	n	1.2E+04	n					2.9E+02	n		6.4E-02	
													Phosphates, Inorganic															
				4.9E+01	P					1			~Aluminum metaphosphate	13776-88-0	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Ammonium polyphosphate	68333-79-9	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Calcium pyrophosphate	7790-76-3	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Diammonium phosphate	7783-28-0	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Dicalcium phosphate	7757-93-9	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Dimagnesium phosphate	7782-75-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Dipotassium phosphate	7758-11-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Disodium phosphate	7558-79-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monoaluminum phosphate	13530-50-2	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monoammonium phosphate	7722-76-1	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monocalcium phosphate	7758-23-8	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monomagnesium phosphate	7757-86-0	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monopotassium phosphate	7778-77-0	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Monosodium phosphate	7558-80-7	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Polyphosphoric acid	8017-16-1	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Potassium tripolyphosphate	13845-36-8	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium acid pyrophosphate	7758-16-9	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium aluminum phosphate (acidic)	7785-88-8	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium aluminum phosphate (anhydrous)	10279-59-1	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium aluminum phosphate (tetrahydrate)	10305-76-7	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium hexametaphosphate	10124-56-8	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium polyphosphate	68915-31-1	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium trimetaphosphate	7785-84-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Sodium tripolyphosphate	7758-29-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Tetrapotassium phosphate	7320-34-5	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Tetrasodium pyrophosphate	7722-88-5	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Trialuminum sodium tetra decahydrogenoctaorthophosphate (dihydrate)	15136-87-5	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Tricalcium phosphate	7758-87-4	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Trimagnesium phosphate	7757-87-1	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Tripotassium phosphate	7778-53-2	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				4.9E+01	P					1			~Trisodium phosphate	7601-54-9	3.8E+06	nm	5.0E+07	nm					7.6E+05	n			
				3.0E-04	I	3.0E-04	I			1			Phosphine	7803-51-2	2.3E+01	n	3.1E+02	n	3.1E-01	n	1.3E+00	n	4.7E+00	n			
				4.9E+01	P	1.0E-02	I			1			Phosphoric Acid	7664-38-2	3.0E+06	nm	2.7E+07	nm	1.0E+01	n	4.4E+01	n	7.6E+05	n			
				2.0E-05	I					1			Phosphorus, White	7723-14-0	1.6E+00	n	2.0E+01	nm					3.1E-01	n		1.1E-03	
				1.0E+00	H					1	0.1		Phthalic Acid, P-	100-21-0	6.1E+04	n	6.2E+05	nm					1.5E+04	n		5.3E+00	
				2.0E+00	I	2.0E-02	C			1	0.1		Phthalic Anhydride	85-44-9	1.2E+05	nm	1.2E+06	nm	2.1E+01	n	8.8E+01	n	3.0E+04	n		6.6E+00	
				7.0E-02	I					1	0.1		Picloram	1918-02-1	4.3E+03	n	4.3E+04	n					1.1E+03	n	5.0E+02	2.9E-01	1.4E-01
				1.0E-04	X					1	0.1		Picramic Acid (2-Amino-4,6-dinitrophenol)	96-91-3	6.1E+00	n	6.2E+01	n					1.5E+00	n		1.0E-03	
				1.0E-02	I					1	0.1		Pirimiphos, Methyl	29232-93-7	6.1E+02	n	6.2E+03	n					9.1E+01	n		8.7E-02	
3.0E+01	C	8.6E-03	C	7.0E-06	H					1	0.1		Polybrominated Biphenyls	59536-65-1	1.6E-02	c*	5.7E-02	c*	2.8E-04	c	1.4E-03	c	2.2E-03	c*			
													Polychlorinated Biphenyls (PCBs)															
7.0E-02	S	2.0E-05	S	7.0E-05	I					1	0.14		~Aroclor 1016	12674-11-2	3.9E+00	n	2.1E+01	c**	1.2E-01	c	6.1E-01	c	9.6E-01	c**		9.2E-02	
2.0E+00	S	5.7E-04	S					V		1	0.14	7.6E+02	~Aroclor 1221	11104-28-2	1.4E-01	c	5.4E-01	c	4.3E-03	c	2.1E-02	c	4.0E-03	c		6.9E-05	
2.0E+00	S	5.7E-04	S					V		1	0.14	7.3E+01	~Aroclor 1232	11141-16-5	1.4E-01	c	5.4E-01	c	4.3E-03	c	2.1E-02	c	4.0E-03	c		6.9E-05	
2.0E+00	S	5.7E-04	S							1	0.14		~Aroclor 1242	53469-21-9	2.2E-01	c	7.4E-01	c	4.3E-03	c	2.1E-02	c	3.4E-02	c		5.3E-03	
2.0E+00	S	5.7E-04	S							1	0.14		~Aroclor 1248	12672-29-6	2.2E-01	c	7.4E-01	c	4.3E-03	c	2.1E-02	c	3.4E-02	c		5.2E-03	

Key: I = IRIS; P = PPRTV; A = ATSDR; C = Cal EPA; X = PPRTV Appendix; H = HEAST; J = New Jersey; O = EPA Office of Water; E = Environmental Criteria and Assessment Office; S = see user guide Section 5; L = see user guide on lead; M = mutagen; V = volatile; F = See FAQ; c = cancer; * = where: n SL < 100X c SL; ** = where n SL < 10X c SL; n = noncancer; m = Concentration may exceed ceiling limit (See User Guide); s = Concentration may exceed Csat (See User Guide); SSL values are based on DAF=1

Toxicity and Chemical-specific Information												Contaminant		Screening Levels										Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
2.0E+00	S	5.7E-04	S	2.0E-05	I					1	0.14		~Aroclor 1254	11097-69-1	2.2E-01	c**	7.4E-01	c*	4.3E-03	c	2.1E-02	c	3.4E-02	c**		8.8E-03	
2.0E+00	S	5.7E-04	S							1	0.14		~Aroclor 1260	11096-82-5	2.2E-01	c	7.4E-01	c	4.3E-03	c	2.1E-02	c	3.4E-02	c		2.4E-02	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Heptachlorobiphenyl, 2,3,3',4,4',5,5'- (PCB 189)	39635-31-9	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		1.2E-02	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Hexachlorobiphenyl, 2,3',4,4',5,5'- (PCB 167)	52663-72-6	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		7.2E-03	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5'- (PCB 157)	69782-90-7	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		7.4E-03	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Hexachlorobiphenyl, 2,3,3',4,4',5- (PCB 156)	38380-08-4	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		7.4E-03	
3.9E+03	E	1.1E+00	E	3.3E-08	E	1.3E-06	E			1	0.14		~Hexachlorobiphenyl, 3,3',4,4',5,5'- (PCB 169)	32774-16-6	1.1E-04	c*	3.8E-04	c*	2.1E-06	c	1.1E-05	c	1.7E-05	c*		7.2E-06	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Pentachlorobiphenyl, 2',3,4,4',5- (PCB 123)	65510-44-3	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		4.5E-03	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Pentachlorobiphenyl, 2,3',4,4',5- (PCB 118)	31508-00-6	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		4.4E-03	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Pentachlorobiphenyl, 2,3,3',4,4'- (PCB 105)	32598-14-4	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		4.5E-03	
3.9E+00	E	1.1E-03	E	3.3E-05	E	1.3E-03	E			1	0.14		~Pentachlorobiphenyl, 2,3,4,4',5- (PCB 114)	74472-37-0	1.1E-01	c*	3.8E-01	c*	2.1E-03	c	1.1E-02	c	1.7E-02	c*		4.5E-03	
1.3E+04	E	3.8E+00	E	1.0E-08	E	4.0E-07	E			1	0.14		~Pentachlorobiphenyl, 3,3',4,4',5- (PCB 126)	57465-28-8	3.4E-05	c*	1.1E-04	c*	6.4E-07	c	3.2E-06	c	5.2E-06	c*		1.3E-06	
2.0E+00	I	5.7E-04	I							1	0.14		~Polychlorinated Biphenyls (high risk)	1336-36-3	2.2E-01	c	7.4E-01	c	4.3E-03	c	2.1E-02	c					
4.0E-01	I	1.0E-04	I							1	0.14		~Polychlorinated Biphenyls (low risk)	1336-36-3					2.4E-02	c	1.2E-01	c	1.7E-01	c	5.0E-01	2.6E-02	7.8E-02
7.0E-02	I	2.0E-05	I							1	0.14		~Polychlorinated Biphenyls (lowest risk)	1336-36-3					1.2E-01	c	6.1E-01	c					
1.3E+01	E	3.8E-03	E	1.0E-05	E	4.0E-04	E			1	0.14		~Tetrachlorobiphenyl, 3,3',4,4'- (PCB 77)	32598-13-3	3.4E-02	c*	1.1E-01	c*	6.4E-04	c	3.2E-03	c	5.2E-03	c*		8.1E-04	
3.9E+01	E	1.1E-02	E	3.3E-06	E	1.3E-04	E			1	0.14		~Tetrachlorobiphenyl, 3,4,4',5- (PCB 81)	70362-50-4	1.1E-02	c*	3.8E-02	c*	2.1E-04	c	1.1E-03	c	1.7E-03	c*		2.7E-04	
						6.0E-04	I			1	0.1		Polymeric Methylene Diphenyl Diisocyanate (PMDI)	9016-87-9	8.5E+05	nm	3.6E+06	nm	6.3E-01	n	2.6E+00	n					
													Polynuclear Aromatic Hydrocarbons (PAHs)														
				6.0E-02	I			V		1	0.13		~Acenaphthene	83-32-9	3.4E+03	n	3.3E+04	n					4.0E+02	n		4.1E+00	
				3.0E-01	I			V		1	0.13		~Anthracene	120-12-7	1.7E+04	n	1.7E+05	nm					1.3E+03	n		4.2E+01	
7.3E-01	E	1.1E-04	C						M	1	0.13		~Benz[a]anthracene	56-55-3	1.5E-01	c	2.1E+00	c	8.7E-03	c	1.1E-01	c	2.9E-02	c		1.0E-02	
1.2E+00	C	1.1E-04	C							1	0.13		~Benzo(j)fluoranthene	205-82-3	3.8E-01	c	1.3E+00	c	2.2E-02	c	1.1E-01	c	5.6E-02	c		6.7E-02	
7.3E+00	I	1.1E-03	C						M	1	0.13		~Benzo[a]pyrene	50-32-8	1.5E-02	c	2.1E-01	c	8.7E-04	c	1.1E-02	c	2.9E-03	c	2.0E-01	3.5E-03	2.4E-01
7.3E-01	E	1.1E-04	C						M	1	0.13		~Benzo[b]fluoranthene	205-99-2	1.5E-01	c	2.1E+00	c	8.7E-03	c	1.1E-01	c	2.9E-02	c		3.5E-02	
7.3E-02	E	1.1E-04	C						M	1	0.13		~Benzo[k]fluoranthene	207-08-9	1.5E+00	c	2.1E+01	c	8.7E-03	c	1.1E-01	c	2.9E-01	c		3.5E-01	
7.3E-03	E	1.1E-05	C						M	1	0.13		~Chrysene	218-01-9	1.5E+01	c	2.1E+02	c	8.7E-02	c	1.1E+00	c	2.9E+00	c		1.1E+00	
7.3E+00	E	1.2E-03	C						M	1	0.13		~Dibenz[a,h]anthracene	53-70-3	1.5E-02	c	2.1E-01	c	8.0E-04	c	1.0E-02	c	2.9E-03	c		1.1E-02	
1.2E+01	C	1.1E-03	C							1	0.13		~Dibenzo(a,e)pyrene	192-65-4	3.8E-02	c	1.3E-01	c	2.2E-03	c	1.1E-02	c	5.6E-03	c		7.3E-02	
2.5E+02	C	7.1E-02	C						M	1	0.13		~Dimethylbenz(a)anthracene, 7,12-	57-97-6	4.3E-04	c	6.2E-03	c	1.4E-05	c	1.7E-04	c	8.6E-05	c		8.5E-05	
				4.0E-02	I					1	0.13		~Fluoranthene	206-44-0	2.3E+03	n	2.2E+04	n					6.3E+02	n		7.0E+01	
				4.0E-02	I			V		1	0.13		~Fluorene	86-73-7	2.3E+03	n	2.2E+04	n					2.2E+02	n		4.0E+00	
7.3E-01	E	1.1E-04	C						M	1	0.13		~Indeno[1,2,3-cd]pyrene	193-39-5	1.5E-01	c	2.1E+00	c	8.7E-03	c	1.1E-01	c	2.9E-02	c		2.0E-01	
2.9E-02	P			7.0E-02	A			V		1	0.13		~Methylnaphthalene, 1-	90-12-0	1.6E+01	c	5.3E+01	c					9.7E-01	c		5.1E-03	
				4.0E-03	I			V		1	0.13		~Methylnaphthalene, 2-	91-57-6	2.3E+02	n	2.2E+03	n					2.7E+01	n		1.4E-01	
		3.4E-05	C	2.0E-02	I	3.0E-03	I	V		1	0.13		~Naphthalene	91-20-3	3.6E+00	c*	1.8E+01	c*	7.2E-02	c*	3.6E-01	c*	1.4E-01	c*		4.7E-04	
1.2E+00	C	1.1E-04	C							1	0.13		~Nitropyrene, 4-	57835-92-4	3.8E-01	c	1.3E+00	c	2.2E-02	c	1.1E-01	c	1.6E-02	c		2.8E-03	
				3.0E-02	I			V		1	0.13		~Pyrene	129-00-0	1.7E+03	n	1.7E+04	n					8.7E+01	n		9.5E+00	
1.5E-01	I			9.0E-03	I					1	0.1		Prochloraz	67747-09-5	3.2E+00	c	1.1E+01	c					3.2E-01	c		1.6E-03	
				6.0E-03	H					1	0.1		Profluralin	26399-36-0	3.7E+02	n	3.7E+03	n					1.9E+01	n		1.2E+00	
				1.5E-02	I					1	0.1		Prometon	1610-18-0	9.2E+02	n	9.2E+03	n					1.9E+02	n		9.2E-02	
				4.0E-03	I					1	0.1		Prometryn	7287-19-6	2.4E+02	n	2.5E+03	n					4.5E+01	n		6.9E-02	
				1.3E-02	I					1	0.1		Propachlor	1918-16-7	7.9E+02	n	8.0E+03	n					1.9E+02	n		1.2E-01	
				5.0E-03	I					1	0.1		Propanil	709-98-8	3.1E+02	n	3.1E+03	n					6.3E+01	n		3.5E-02	
				2.0E-02	I					1	0.1		Propargite	2312-35-8	1.2E+03	n	1.2E+04	n					1.2E+02	n		8.8E+00	
				2.0E-03	I					1	0.1		Propargyl Alcohol	107-19-7	1.2E+02	n	1.2E+03	n					3.1E+01	n		6.4E-03	
				2.0E-02	I					1	0.1		Propazine	139-40-2	1.2E+03	n	1.2E+04	n					2.6E+02	n		2.3E-01	
				2.0E-02	I					1	0.1		Propham	122-42-9	1.2E+03	n	1.2E+04	n					2.7E+02	n		1.7E-01	
				1.3E-02	I					1	0.1		Propiconazole	60207-90-1	7.9E+02	n	8.0E+03	n					1.6E+02	n		5.3E-01	
						8.0E-03	I	V		1		3.3E+04	Propionaldehyde	123-38-6	8.0E+01	n	3.4E+02	n	8.3E+00	n	3.5E+01	n	1.7E+01	n		3.4E-03	
				1.0E-01	X	1.0E+00	X	V		1	0.1	2.6E+02	Propyl benzene	103-65-1	3.4E+03	ns	2.1E+04	ns	1.0E+03	n	4.4E+03	n	5.3E+02	n		9.9E-01	
						3.0E+00	C	V		1	0.1	3.5E+02	Propylene	115-07-1	2.4E+03	ns	1.0E+04	ns	3.1E+03	n	1.3E+04	n	6.3E+03	n		6.0E+00	
				2.0E+01	P					1	0.1		Propylene Glycol	57-55-6	1.2E+06	nm	1.2E+07	nm					3.1E+05	n		6.3E+01	
						2.7E-04	A			1	0.1		Propylene Glycol Dinitrate	6423-43-4	3.9E+05	nm	1.6E+06	nm	2.8E-01	n	1.2E+00	n					
				7.0E-01	H					1	0.1		Propylene Glycol Monoethyl Ether	1569-02-4	4.3E+04	n	4.3E+05	nm					1.1E+04	n		2.2E+00	
				7.0E-01	H	2.0E+00	I			1	0.1		Propylene Glycol Monomethyl Ether	107-98-2	4.3E+04	n	4.3E+05	nm	2.1E+03	n	8.8E+03	n	1.1E+04	n		2.2E+00	
2.4E-01	I	3.7E-06	I			3.0E-02	I	V		1		7.8E+04	Propylene Oxide	75-56-9	2.0E+00	c	9.0E+00	c	6.6E-01	c*	3.3E+00	c*	2.3E-01	c		4.8E-05	
				2.5E-01	I					1	0.1		Pursuit	81335-77-5	1.5E+04	n	1.5E+05	nm					3.6E+03	n		3.2E+00	
				2.5E-02	I					1	0.1		Pydrin	51630-58-1	1.5E+03	n	1.5E+04	n					3.9E+02	n		2.5E+02	
				1.0E-03	I			V		1		5.3E+05	Pyridine	110-86-1	7.8E+01	n	1.0E+03	n					1.5E+01	n		5.3E-03	
				5.0E-04	I					1	0.1		Quinalphos	13593-03-8	3.1E+01	n	3.1E+02	n					3.8E+00	n		3.2E-02	
3.0E+00	I									1	0.1		Quinoline	91-22-5	1.6E-01	c	5.7E-01	c					2.1E-02	c		6.8E-05	
						3.0E-02	A			1			Refractory Ceramic Fibers	NA	4.3E+07	nm	1.8E+08	nm	3.1E+01	n	1.3E+02	n					
				3.0E-02	I					1	0.1		Resmethrin	10453-86-8	1.8E+03	n	1.8E+04	n					4.8E+01	n		3.0E+01	
				5.0E-02	H					1	0.1		Ronnel	299-84-3	3.1E+03	n	3.1E+04	n					3.0E+02	n		2.7E+00	

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Toxicity and Chemical-specific Information													Contaminant		Screening Levels												Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	voc	mutagen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				4.0E-03	I					1	0.1		Rotenone	83-79-4	2.4E+02	n	2.5E+03	n					4.7E+01	n		2.4E+01	
2.2E-01	C	6.3E-05	C						M	1	0.1		Safrole	94-59-7	5.2E-01	c	7.8E+00	c	1.5E-02	c	1.9E-01	c	8.3E-02	c		5.1E-05	
				2.5E-02	I					1	0.1		Savey	78587-05-0	1.5E+03	n	1.5E+04	n					8.1E+01	n		3.6E-01	
				5.0E-03	I					1			Selenious Acid	7783-00-8	3.9E+02	n	5.1E+03	n					7.8E+01	n			
				5.0E-03	I	2.0E-02	C			1			Selenium	7782-49-2	3.9E+02	n	5.1E+03	n	2.1E+01	n	8.8E+01	n	7.8E+01	n	5.0E+01	4.0E-01	2.6E-01
				5.0E-03	C	2.0E-02	C			1			Selenium Sulfide	7446-34-6	3.9E+02	n	5.1E+03	n	2.1E+01	n	8.8E+01	n	7.8E+01	n			
				9.0E-02	I					1	0.1		Sethoxydim	74051-80-2	5.5E+03	n	5.5E+04	n					7.8E+02	n		6.9E+00	
						3.0E-03	C			1			Silica (crystalline, respirable)	7631-86-9	4.3E+06	nm	1.8E+07	nm	3.1E+00	n	1.3E+01	n					
				5.0E-03	I					0.04			Silver	7440-22-4	3.9E+02	n	5.1E+03	n					7.1E+01	n		6.0E-01	
1.2E-01	H			5.0E-03	I					1	0.1		Simazine	122-34-9	4.1E+00	c*	1.4E+01	c					5.2E-01	c	4.0E+00	2.6E-04	2.0E-03
				1.3E-02	I					1	0.1		Sodium Acifluorfen	62476-59-9	7.9E+02	n	8.0E+03	n					2.0E+02	n		1.6E+00	
				4.0E-03	I					1			Sodium Azide	26628-22-8	3.1E+02	n	4.1E+03	n					6.2E+01	n			
2.7E-01	H			3.0E-02	I					1	0.1		Sodium Diethyldithiocarbamate	148-18-5	1.8E+00	c	6.4E+00	c					2.5E-01	c			
				5.0E-02	A	1.3E-02	C			1			Sodium Fluoride	7681-49-4	3.9E+03	n	5.1E+04	n	1.4E+01	n	5.7E+01	n	7.8E+02	n			
				2.0E-05	I					1	0.1		Sodium Fluoroacetate	62-74-8	1.2E+00	n	1.2E+01	n					3.1E-01	n		6.3E-05	
				1.0E-03	H					1			Sodium Metavanadate	13718-26-8	7.8E+01	n	1.0E+03	n					1.6E+01	n			
2.4E-02	H			3.0E-02	I					1	0.1		Stirofos (Tetrachlorovinphos)	961-11-5	2.0E+01	c*	7.2E+01	c					2.4E+00	c		7.0E-03	
				6.0E-01	I					1			Strontium, Stable	7440-24-6	4.7E+04	n	6.1E+05	nm					9.3E+03	n		3.3E+02	
				3.0E-04	I					1	0.1		Strychnine	57-24-9	1.8E+01	n	1.8E+02	n					4.6E+00	n		5.1E-02	
				2.0E-01	I	1.0E+00	I	V		1		8.7E+02	Styrene	100-42-5	6.3E+03	ns	3.6E+04	ns	1.0E+03	n	4.4E+03	n	1.1E+03	n	1.0E+02	1.2E+00	1.1E-01
				1.0E-03	P	2.0E-03	P			1	0.1		Sulfolane	126-33-0	6.1E+01	n	6.2E+02	n	2.1E+00	n	8.8E+00	n	1.6E+01	n		3.4E-03	
				8.0E-04	P					1	0.1		Sulfonylbis(4-chlorobenzene), 1,1'-	80-07-9	4.9E+01	n	4.9E+02	n					8.3E+00	n		4.9E-02	
						1.0E-03	C			1			Sulfuric Acid	7664-93-9	1.4E+06	nm	6.0E+06	nm	1.0E+00	n	4.4E+00	n					
				2.5E-02	I					1	0.1		Systhane	88671-89-0	1.5E+03	n	1.5E+04	n					3.5E+02	n		4.3E+00	
				3.0E-02	H					1	0.1		TCMTB	21564-17-0	1.8E+03	n	1.8E+04	n					3.7E+02	n		2.6E+00	
				7.0E-02	I					1	0.1		Tebuthiuron	34014-18-1	4.3E+03	n	4.3E+04	n					1.1E+03	n		3.0E-01	
				2.0E-02	H					1	0.1		Temephos	3383-96-8	1.2E+03	n	1.2E+04	n					3.1E+02	n		6.0E+01	
				1.3E-02	I					1	0.1		Terbacil	5902-51-2	7.9E+02	n	8.0E+03	n					2.0E+02	n		5.9E-02	
				2.5E-05	H					1	0.1		Terbufos	13071-79-9	1.5E+00	n	1.5E+01	n					1.8E-01	n		3.9E-04	
				1.0E-03	I					1	0.1		Terbutryn	886-50-0	6.1E+01	n	6.2E+02	n					1.0E+01	n		1.4E-02	
				1.0E-04	I					1	0.1		Tetrabromodiphenyl ether, 2,2',4,4'- (BDE-47)	5436-43-1	6.1E+00	n	6.2E+01	n					1.6E+00	n		4.2E-02	
				3.0E-04	I					1	0.1		Tetrachlorobenzene, 1,2,4,5-	95-94-3	1.8E+01	n	1.8E+02	n					1.2E+00	n		5.8E-03	
2.6E-02	I	7.4E-06	I	3.0E-02	I			V		1		6.8E+02	Tetrachloroethane, 1,1,1,2-	630-20-6	1.9E+00	c	9.3E+00	c	3.3E-01	c	1.7E+00	c	5.0E-01	c		1.9E-04	
2.0E-01	I	5.8E-05	C	2.0E-02	I			V		1		1.9E+03	Tetrachloroethane, 1,1,2,2-	79-34-5	5.6E-01	c	2.8E+00	c	4.2E-02	c	2.1E-01	c	6.6E-02	c		2.6E-05	
2.1E-03	I	2.6E-07	I	6.0E-03	I	4.0E-02	I	V		1		1.7E+02	Tetrachloroethylene	127-18-4	2.2E+01	c**	1.1E+02	c**	9.4E+00	c**	4.7E+01	c**	9.7E+00	c**	5.0E+00	4.4E-03	2.3E-03
				3.0E-02	I					1	0.1		Tetrachlorophenol, 2,3,4,6-	58-90-2	1.8E+03	n	1.8E+04	n					1.7E+02	n		1.1E+00	
2.0E+01	H									1	0.1		Tetrachlorotoluene, p- alpha, alpha, alpha-	5216-25-1	2.4E-02	c	8.6E-02	c					1.1E-03	c		3.9E-06	
				5.0E-04	I					1	0.1		Tetraethyl Dithiopyrophosphate	3689-24-5	3.1E+01	n	3.1E+02	n					5.3E+00	n		3.9E-03	
						8.0E+01	I	V		1		1.1E+03	Tetrafluoroethane, 1,1,1,2-	811-97-2	1.1E+05	nms	4.6E+05	nms	8.3E+04	n	3.5E+05	n	1.7E+05	n		9.3E+01	
				4.0E-03	P					1	0.1		Tetryl (Trinitrophenylmethylnitramine)	479-45-8	2.4E+02	n	2.5E+03	n					6.1E+01	n		5.8E-01	
				7.0E-06	X					1			Thallium (I) Nitrate	10102-45-1	5.5E-01	n	7.2E+00	n					1.1E-01	n			
				1.0E-05	X					1			Thallium (Soluble Salts)	7440-28-0	7.8E-01	n	1.0E+01	n					1.6E-01	n	2.0E+00	1.1E-02	1.4E-01
				6.0E-06	X					1			Thallium Acetate	563-68-8	4.7E-01	n	6.1E+00	n					9.3E-02	n			
				2.0E-05	X					1			Thallium Carbonate	6533-73-9	1.6E+00	n	2.0E+01	n					3.1E-01	n			
				6.0E-06	X					1			Thallium Chloride	7791-12-0	4.7E-01	n	6.1E+00	n					9.3E-02	n			
				2.0E-05	X					1			Thallium Sulfate	7446-18-6	1.6E+00	n	2.0E+01	n					3.1E-01	n			
				1.0E-02	I					1	0.1		Thiobencarb	28249-77-6	6.1E+02	n	6.2E+03	n					1.2E+02	n		4.2E-01	
				7.0E-02	X					1	0.008		Thiodiglycol	111-48-8	5.4E+03	n	6.8E+04	n					1.1E+03	n		2.2E-01	
				3.0E-04	H					1	0.1		Thiofanox	39196-18-4	1.8E+01	n	1.8E+02	n					4.1E+00	n		1.4E-03	
				8.0E-02	I					1	0.1		Thiophanate, Methyl	23564-05-8	4.9E+03	n	4.9E+04	n					1.2E+03	n		1.1E+00	
				5.0E-03	I					1	0.1		Thiram	137-26-8	3.1E+02	n	3.1E+03	n					7.6E+01	n		1.1E-01	
				6.0E-01	H					1			Tin	7440-31-5	4.7E+04	n	6.1E+05	nm					9.3E+03	n		2.3E+03	
						1.0E-04	A			1			Titanium Tetrachloride	7550-45-0	1.4E+05	nm	6.0E+05	nm	1.0E-01	n	4.4E-01	n					
				8.0E-02	I	5.0E+00	I	V		1		8.2E+02	Toluene	108-88-3	5.0E+03	ns	4.5E+04	ns	5.2E+03	n	2.2E+04	n	8.6E+02	n	1.0E+03	5.9E-01	6.9E-01
				6.0E-01	H					1	0.1		Toluene-2,5-diamine	95-70-5	3.7E+04	n	3.7E+05	nm					9.3E+03	n		2.9E+00	
3.0E-02	P			4.0E-03	X					1	0.1		Toluidine, p-	106-49-0	1.6E+01	c*	5.7E+01	c*					2.2E+00	c*		9.2E-04	
1.1E+00	I	3.2E-04	I							1	0.1		Toxaphene	8001-35-2	4.4E-01	c	1.6E+00	c	7.6E-03	c	3.8E-02	c	1.3E-02	c	3.0E+00	2.1E-03	4.6E-01
				7.5E-03	I					1	0.1		Tralomethrin	66841-25-6	4.6E+02	n	4.6E+03	n					1.2E+02	n		4.5E+01	
				3.0E-04	A					1	0.1		Tri-n-butyltin	688-73-3	1.8E+01	n	1.8E+02	n					2.8E+00	n		6.2E-02	
				8.0E+01	X				M	1	0.1		Triacetin	102-76-1	4.9E+06	nm	4.9E+07	nm					1.2E+06	n		3.5E+02	
				1.3E-02	I					1	0.1		Triallate	2303-17-5	7.9E+02	n	8.0E+03	n					8.7E+01	n		1.9E-01	
				1.0E-02	I					1	0.1		Triasulfuron	82097-50-5	6.1E+02	n	6.2E+03	n					1.6E+02	n		1.6E-01	
				5.0E-03	I					1	0.1		Tribromobenzene, 1,2,4-	615-54-3	3.1E+02	n	3.1E+03	n					3.3E+01	n		4.7E-02	
9.0E-03	P			1.0E-02	P					1	0.1		Tributyl Phosphate	126-73-8	5.4E+01	c*	1.9E+02	c*					4.5E+00	c*		2.2E-02	
				3.0E-04	P					1	0.1		Tributyltin Compounds	NA	1.8E+01	n	1.8E+02	n					4.7E+00	n			

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Toxicity and Chemical-specific Information															Contaminant		Screening Levels											Protection of Ground Water SSLs	
SFO (mg/kg-day)$^{-1}$	key	IUR (ug/m^3)$^{-1}$	key	RfD_o (mg/kg-day)	key	RfC_i (mg/m^3)	key	volc	muta-gen	GIABS	ABS	C_{sat} (mg/kg)	Analyte	CAS No.	Resident Soil (mg/kg)	key	Industrial Soil (mg/kg)	key	Resident Air (ug/m^3)	key	Industrial Air (ug/m^3)	key	Tapwater (ug/L)	key	MCL (ug/L)	Risk-based SSL (mg/kg)	MCL-based SSL (mg/kg)
				3.0E-04	I					1	0.1		Tributyltin Oxide	56-35-9	1.8E+01	n	1.8E+02	n					4.4E+00	n		2.3E+02	
				3.0E+01	I	3.0E+01	H	V		1		9.1E+02	Trichloro-1,2,2-trifluoroethane, 1,1,2-	76-13-1	4.3E+04	ns	1.8E+05	nms	3.1E+04	n	1.3E+05	n	5.3E+04	n		1.3E+02	
7.0E-02	I			2.0E-02	I					1	0.1		Trichloroacetic Acid	76-03-9	6.9E+00	c	2.5E+01	c					9.4E-01	c	6.0E+01	1.9E-04	1.2E-02
2.9E-02	H									1	0.1		Trichloroaniline HCl, 2,4,6-	33663-50-2	1.7E+01	c	5.9E+01	c					2.3E+00	c		6.4E-03	
7.0E-03	X			3.0E-05	X					1	0.1		Trichloroaniline, 2,4,6-	634-93-5	1.8E+00	n	1.8E+01	n					3.0E-01	n		2.7E-03	
				8.0E-04	X			V		1	0.1		Trichlorobenzene, 1,2,3-	87-61-6	4.9E+01	n	4.9E+02	n					5.2E+00	n		1.5E-02	
2.9E-02	P			1.0E-02	I	2.0E-03	P	V		1		4.0E+02	Trichlorobenzene, 1,2,4-	120-82-1	2.2E+01	c**	9.9E+01	c**	2.1E+00	n	8.8E+00	n	9.9E-01	c**	7.0E+01	2.9E-03	2.0E-01
				2.0E+00	I	5.0E+00	I	V		1		6.4E+02	Trichloroethane, 1,1,1-	71-55-6	8.7E+03	ns	3.8E+04	ns	5.2E+03	n	2.2E+04	n	7.5E+03	n	2.0E+02	2.6E+00	7.0E-02
5.7E-02	I	1.6E-05	I	4.0E-03	I	2.0E-04	X	V		1		2.2E+03	Trichloroethane, 1,1,2-	79-00-5	1.1E+00	c**	5.3E+00	c**	1.5E-01	c**	7.7E-01	c**	2.4E-01	c**	5.0E+00	7.7E-05	1.6E-03
4.6E-02	I	4.1E-06	I	5.0E-04	I	2.0E-03	I	V	M	1		6.9E+02	Trichloroethylene	79-01-6	9.1E-01	c**	6.4E+00	c**	4.3E-01	c**	3.0E+00	c**	4.4E-01	c**	5.0E+00	1.6E-04	1.8E-03
				3.0E-01	I	7.0E-01	H	V		1		1.2E+03	Trichlorofluoromethane	75-69-4	7.9E+02	n	3.4E+03	ns	7.3E+02	n	3.1E+03	n	1.1E+03	n		6.9E-01	
				1.0E-01	I					1	0.1		Trichlorophenol, 2,4,5-	95-95-4	6.1E+03	n	6.2E+04	n					8.9E+02	n		3.3E+00	
1.1E-02	I	3.1E-06	I	1.0E-03	P					1	0.1		Trichlorophenol, 2,4,6-	88-06-2	4.4E+01	c**	1.6E+02	c**	7.8E-01	c	4.0E+00	c	3.5E+00	c**		1.3E-02	
				1.0E-02	I					1	0.1		Trichlorophenoxyacetic Acid, 2,4,5-	93-76-5	6.1E+02	n	6.2E+03	n					1.2E+02	n		5.2E-02	
				8.0E-03	I					1	0.1		Trichlorophenoxypropionic acid, -2,4,5	93-72-1	4.9E+02	n	4.9E+03	n					8.4E+01	n	5.0E+01	4.6E-02	2.8E-02
				5.0E-03	I			V		1		1.3E+03	Trichloropropane, 1,1,2-	598-77-6	3.9E+02	n	5.1E+03	ns					6.8E+01	n		2.7E-02	
3.0E+01	I			4.0E-03	I	3.0E-04	I	V	M	1		1.4E+03	Trichloropropane, 1,2,3-	96-18-4	5.0E-03	c	9.5E-02	c	3.1E-01	n	1.3E+00	n	6.5E-04	c		2.8E-07	
				3.0E-03	X	3.0E-04	P	V		1		4.5E+02	Trichloropropene, 1,2,3-	96-19-5	7.8E-01	n	3.3E+00	n	3.1E-01	n	1.3E+00	n	6.2E-01	n		3.1E-04	
				3.0E-03	I					1	0.1		Tridiphane	58138-08-2	1.8E+02	n	1.8E+03	n					1.3E+01	n		9.3E-02	
						7.0E-03	I	V		1		2.8E+04	Triethylamine	121-44-8	1.2E+02	n	5.2E+02	n	7.3E+00	n	3.1E+01	n	1.5E+01	n		4.4E-03	
7.7E-03	I			7.5E-03	I					1	0.1		Trifluralin	1582-09-8	6.3E+01	c**	2.2E+02	c*					2.2E+00	c*		7.2E-02	
2.0E-02	P			1.0E-02	P					1	0.1		Trimethyl Phosphate	512-56-1	2.4E+01	c*	8.6E+01	c*					3.4E+00	c*		7.4E-04	
						5.0E-03	P	V		1		2.9E+02	Trimethylbenzene, 1,2,3-	526-73-8	5.3E+01	n	2.2E+02	n	5.2E+00	n	2.2E+01	n	1.0E+01	n		1.5E-02	
						7.0E-03	P	V		1		2.2E+02	Trimethylbenzene, 1,2,4-	95-63-6	6.2E+01	n	2.6E+02	ns	7.3E+00	n	3.1E+01	n	1.5E+01	n		2.1E-02	
				1.0E-02	X			V		1		1.8E+02	Trimethylbenzene, 1,3,5-	108-67-8	7.8E+02	ns	1.0E+04	ns					8.7E+01	n		1.2E-01	
				3.0E-02	I					1	0.019		Trinitrobenzene, 1,3,5-	99-35-4	2.2E+03	n	2.7E+04	n					4.6E+02	n		1.7E+00	
3.0E-02	I			5.0E-04	I					1	0.032		Trinitrotoluene, 2,4,6-	118-96-7	1.9E+01	c**	7.9E+01	c**					2.2E+00	c**		1.3E-02	
				2.0E-02	P					1	0.1		Triphenylphosphine Oxide	791-28-6	1.2E+03	n	1.2E+04	n					2.8E+02	n		1.2E+00	
				1.0E-02	X				M	1	0.1		Tris(1-chloro-2-propyl)phosphate	13674-84-5	6.1E+02	n	6.2E+03	n					1.5E+02	n		5.0E-01	
2.0E-02	P			7.0E-03	P					1	0.1		Tris(2-chloroethyl)phosphate	115-96-8	2.4E+01	c*	8.6E+01	c*					3.3E+00	c*		3.2E-03	
3.2E-03	P			1.0E-01	P					1	0.1		Tris(2-ethylhexyl)phosphate	78-42-2	1.5E+02	c*	5.4E+02	c					2.1E+01	c*		1.0E+02	
				3.0E-03	I					1			Uranium (Soluble Salts)	NA	2.3E+02	n	3.1E+03	n					4.7E+01	n	3.0E+01	2.1E+01	1.4E+01
1.0E+00	C	2.9E-04	C						M	1	0.1		Urethane	51-79-6	1.2E-01	c	1.7E+00	c	3.3E-03	c	4.2E-02	c	2.1E-02	c		4.8E-06	
		8.3E-03	P	9.0E-03	I	7.0E-06	P			0.026			Vanadium Pentoxide	1314-62-1	4.0E+02	c**	2.0E+03	c**	2.9E-04	c*	1.5E-03	c*	1.1E+02	n			
				5.0E-03	S					1			Vanadium and Compounds	NA	3.9E+02	n	5.2E+03	n					7.8E+01	n		7.8E+01	
				1.0E-03	I					1	0.1		Vernolate	1929-77-7	6.1E+01	n	6.2E+02	n					8.3E+00	n		6.6E-03	
				2.5E-02	I					1	0.1		Vinclozolin	50471-44-8	1.5E+03	n	1.5E+04	n					3.4E+02	n		2.6E-01	
				1.0E+00	H	2.0E-01	I	V		1		2.8E+03	Vinyl Acetate	108-05-4	9.7E+02	n	4.1E+03	ns	2.1E+02	n	8.8E+02	n	4.1E+02	n		8.7E-02	
		3.2E-05	H			3.0E-03	I	V		1		3.4E+03	Vinyl Bromide	593-60-2	1.1E-01	c*	5.6E-01	c*	7.6E-02	c*	3.8E-01	c*	1.5E-01	c*		4.4E-05	
7.2E-01	I	4.4E-06	I	3.0E-03	I	1.0E-01	I	V	M	1		3.9E+03	Vinyl Chloride	75-01-4	6.0E-02	c	1.7E+00	c	1.6E-01	c	2.8E+00	c	1.5E-02	c	2.0E+00	5.3E-06	6.9E-04
				3.0E-04	I					1	0.1		Warfarin	81-81-2	1.8E+01	n	1.8E+02	n					4.4E+00	n		4.6E-03	
				2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, P-	106-42-3	6.0E+02	ns	2.6E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.8E-01	
				2.0E-01	S	1.0E-01	S	V		1		3.9E+02	Xylene, m-	108-38-3	5.9E+02	ns	2.5E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.8E-01	
				2.0E-01	S	1.0E-01	S	V		1		4.3E+02	Xylene, o-	95-47-6	6.9E+02	ns	3.0E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n		1.9E-01	
				2.0E-01	I	1.0E-01	I	V		1		2.6E+02	Xylenes	1330-20-7	6.3E+02	ns	2.7E+03	ns	1.0E+02	n	4.4E+02	n	1.9E+02	n	1.0E+04	1.9E-01	9.8E+00
				3.0E-04	I					1			Zinc Phosphide	1314-84-7	2.3E+01	n	3.1E+02	n					4.7E+00	n			
				3.0E-01	I					1			Zinc and Compounds	7440-66-6	2.3E+04	n	3.1E+05	nm					4.7E+03	n		2.9E+02	
				5.0E-02	I					1	0.1		Zineb	12122-67-7	3.1E+03	n	3.1E+04	n					7.7E+02	n		2.2E+00	
				8.0E-05	P					1			Zirconium	7440-67-7	6.3E+00	n	8.2E+01	n					1.2E+00	n		3.7E+00	

APPENDIX C

Well and Field Logs

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

OW-1

GAUGE DATE	3/22/2012
GAUGE TIME	1130
DTB (feet) Depth to Bottom	94.55
DEDICATED PUMP	Y(inop)
DTW (feet) Depth to Water	3.40
DTB - DTW	91.15
Capacity per foot	0.650
3 Well Volumes	177.70
PURGE DATE	3/22/2012
PURGE TIME	1530
SAMPLE DAY	3/22/2012
SAMPLE TIME	1535
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)	1530	8.74	10.12	0.983	0.892	0.690	144	73.8

WEATHER CONDITIONS

Hot, breezy

WATER APPEARANCE

Clear

SAMPLE LOG

Portable pump malfunctioned. Bailed 10 gallons, collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drum to be disposed of at the bundle pad upstream of the NAPIS .

OW-10

GAUGE DATE	3/22/2012
GAUGE TIME	1539
DTB (feet) Depth to Bottom	--
DEDICATED PUMP	no
DTW (feet) Depth to Water	0.50
DTB - DTW	--
Capacity per foot	--
3 Well Volumes	--
PURGE DATE	3/22/2012
PURGE TIME	1540
SAMPLE DAY	3/22/2012
SAMPLE TIME	1602
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1600	7.88	12.07	1.427	1.221	0.96	148	113.6
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Warm, clear, and breezy

WATER APPEARANCE

Clear, no odor.

SAMPLE LOG

Portable pump malfunctioned. Bailed 20 gallons, collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drums to be disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer.

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

OW-13

GAUGE DATE	3/21/2012
GAUGE TIME	1227
DTB (feet) Depth to Bottom	99.15
DEDICATED PUMP	Y
DTW (feet) Depth to Water	22.50
DTB - DTW	76.65
Capacity per foot	0.740
3 Well Volumes	170.00
PURGE DATE	3/21/2012
PURGE TIME	1230
SAMPLE DAY	3/21/2012
SAMPLE TIME	1320
PUMP DEPTH	80 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1230	8.22	12.56	0.949	0.810	0.63	110.6	1.6
(2)	1245	8.16	12.85	0.984	0.810	0.68	24.2	-35.3
(3)	1301	8.15	12.85	0.948	0.803	0.62	140.4	-27.1
(4)	1320	8.09	13.02	0.951	0.803	0.62	24.3	3.7

WEATHER CONDITIONS

Warm, breezy

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Pumped approximately 170 gals. Collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drum to be disposed of at the bundle pad upstream of the NAPIS .

OW-14

GAUGE DATE	3/21/2012
GAUGE TIME	1420
DTB (feet) Depth to Bottom	46.52
DEDICATED PUMP	Y
DTW (feet) Depth to Water	24.92
DTB - DTW	21.60
Capacity per foot	0.740
3 Well Volumes	48.00
PURGE DATE	3/21/2012
PURGE TIME	1423
SAMPLE DAY	3/21/2012
SAMPLE TIME	1438
PUMP DEPTH	30 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1426	7.16	13.79	1.994	1.647	1.32	12.2	-124.6
(2)	1430	7.14	13.60	1.984	1.645	1.31	40.1	-111.6
(3)	1433	7.11	13.34	1.978	1.645	1.31	23.0	-107.7
(4)	1437	7.10	13.26	1.986	1.656	1.32	16.4	-110.0

WEATHER CONDITIONS

Cool, sunny, breezy

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Pumped approximately 50 gals. Collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drum to be disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

OW-29

GAUGE DATE	3/21/2012
GAUGE TIME	1333
DTB (feet) Depth to Bottom	51.08
DEDICATED PUMP	Y
DTW (feet) Depth to Water	19.80
DTB - DTW	31.28
Capacity per foot	0.650
3 Well Volumes	61.00
PURGE DATE	3/21/2012
PURGE TIME	1334
SAMPLE DAY	3/21/2012
SAMPLE TIME	1410
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1337	7.45	12.73	1.327	1.125	0.88	100.0	-59.1
(2)	1342	7.44	12.53	1.298	1.407	0.87	30.2	-67.6
(3)	1351	7.40	12.99	1.331	1.123	0.88	31.3	-37.2
(4)	1468	7.38	13.15	1.342	1.127	0.88	36.9	-58.1

WEATHER CONDITIONS

Windy, clear, cool

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Pumped approximately 61 gals. Collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drum to be disposed of at the bundle pad upstream of the NAPIS .

OW-30

GAUGE DATE	3/21/2012
GAUGE TIME	1000
DTB (feet) Depth to Bottom	49.90
DEDICATED PUMP	Y
DTW (feet) Depth to Water	24.23
DTB - DTW	25.67
Capacity per foot	0.650
3 Well Volumes	50.00
PURGE DATE	3/21/2012
PURGE TIME	1008
SAMPLE DAY	3/21/2012
SAMPLE TIME	1025
PUMP DEPTH	38 ft
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1010	7.33	12.04	1.760	1.144	0.90	36.1	7.8
(2)	1013	7.27	12.16	1.760	1.147	0.90	30.7	3.5
(3)	1017	7.27	12.10	1.760	1.510	0.91	30.8	4.3
(4)	1020	7.27	12.20	1.770	1.500	0.90	30.7	4.0

WEATHER CONDITIONS

Clear, cool, calm.

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Pumped approximately 50 gals. Collected water samples, labeled and placed on ice in cooler. Purge water collected labeled 55 gal drum to be disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
1st QTR 2012

OW-50		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3/22/2012	(1)	1348	8.24	13.13	0.853	0.717	0.55	92.5	55.7
GAUGE TIME	1310	(2)								
DTB (feet) Depth to Bottom	64.00	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	16.88									
DTB - DTW	47.12									
Capacity per foot	0.163									
3 Well Volumes	23.00									
PURGE DATE	3/22/2012									
PURGE TIME	1311									
SAMPLE DAY	3/22/2012									
SAMPLE TIME	1350									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Warm, sunny, calm

WATER APPEARANCE

Clear at first, turned cloudy

SAMPLE LOG

Portable pump malfunctioned. Bailed 23 gallons, collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drums to be disposed of at the bundle pad upstream of the NAPIS .

OW-52		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	3/22/2012	(1)	1451	8.26	13.69	0.801	0.662	0.51	100.7	-81.4
GAUGE TIME	1408	(2)								
DTB (feet) Depth to Bottom	77.74	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	15.65									
DTB - DTW	62.09									
Capacity per foot	0.163									
3 Well Volumes	30.00									
PURGE DATE	3/22/2012									
PURGE TIME	1412									
SAMPLE DAY	3/22/2012									
SAMPLE TIME	1455									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Warm, sunny, calm

WATER APPEARANCE

Clear to murky

SAMPLE LOG

Portable pump malfunctioned. Bailed approximately 20 gallons, collected water samples, labeled and placed on ice in cooler. Purge water collected in labeled 55 gal drums to be disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

NAPIS-1

GAUGE DATE	3/20/2012
GAUGE TIME	0924
DTB (feet) Depth to Bottom	13.53
DEDICATED PUMP	N
DTW (feet) Depth to Water	7.24
DTB - DTW	6.29
Capacity per foot	0.163
3 Well Volumes	3.02
PURGE DATE	3/20/2012
PURGE TIME	0927
SAMPLE DAY	3/20/2012
SAMPLE TIME	0945
PUMP DEPTH DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	0929	7.31	9.94	1.290	1.199	0.94	78.8	36.7
(2)	0932	7.26	10.28	1.303	1.178	0.92	36.7	37.6
(3)	0936	7.26	10.53	1.297	1.163	0.91	34.8	40.7
(4)	0940	7.29	10.65	1.311	1.172	0.92	49.7	40.9

WEATHER CONDITIONS

Cool, sunny

WATER APPEARANCE

Clear to cloudy

SAMPLE LOG

Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

NAPIS-2

GAUGE DATE	3/20/2012
GAUGE TIME	0850
DTB (feet) Depth to Bottom	13.61
DEDICATED PUMP	N
DTW (feet) Depth to Water	7.97
DTB - DTW	5.64
Capacity per foot	0.163
3 Well Volumes	2.70
PURGE DATE	3/20/2012
PURGE TIME	0859
SAMPLE DAY	3/20/2012
SAMPLE TIME	0915
PUMP DEPTH DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	0859	6.90	17.27	2.68	1.744	1.40	29.5	-135.0
(2)	0901	6.93	19.70	2.57	1.480	1.35	29.6	-132.1
(3)	0903	6.97	20.05	2.38	1.544	1.23	29.4	-125.3
(4)	0905	7.03	20.62	2.31	1.507	1.20	32.0	-125.2

WEATHER CONDITIONS

Cool, sunny w/ slight breeze

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
1st QTR 2012

NAPIS-3

GAUGE DATE	3/20/2012
GAUGE TIME	1126
DTB (feet) Depth to Bottom	30.42
DEDICATED PUMP	N
DTW (feet) Depth to Water	7.51
DTB - DTW	22.91
Capacity per foot	0.163
3 Well Volumes	11.20
PURGE DATE	3/20/2012
PURGE TIME	1130
SAMPLE DAY	3/20/2012
SAMPLE TIME	1150
PUMP DEPTH	NA
DTW (feet) at end of Purging	Dry

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1130	8.04	20.48	3.929	2.817	2.32	78.3	42.2
(2)	1137	7.77	19.15	3.968	2.912	2.41	43.4	55.6
(3)								
(4)								

WEATHER CONDITIONS

Cool, sunny, and breezy

WATER APPEARANCE

Started clear and purged dry (~5 gallons).

SAMPLE LOG

Began with purge. Bailed approximately 5 gals, well purged dry. Allowed for recharge, collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

KA-3

GAUGE DATE	3/20/2012
GAUGE TIME	1046
DTB (feet) Depth to Bottom	23.20
DEDICATED PUMP	N
DTW (feet) Depth to Water	7.93
DTB - DTW	15.27
Capacity per foot	0.163
3 Well Volumes	7.50
PURGE DATE	3/20/2012
PURGE TIME	1648
SAMPLE DAY	3/20/2012
SAMPLE TIME	1125
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1050	7.69	21.64	4.082	2.843	2.34	38.8	23.5
(2)	1053	7.30	23.34	3.531	2.372	1.92	15.2	43.0
(3)	1058	7.47	22.05	3.795	2.620	2.14	21.3	65.6
(4)	1106	7.48	22.31	3.540	2.437	1.98	21.2	60.0

WEATHER CONDITIONS

Cool and breezy

WATER APPEARANCE

Started clear and turned cloudy brown during purge.

SAMPLE LOG

Began with purge. Bailed approximately 8 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
1st QTR 2012

GWM-1	
GAUGE DATE	3/20/2012
GAUGE TIME	1457
DTB (feet) Depth to Bottom	26.20
DEDICATED PUMP	N
DTW (feet) Depth to Water	14.49
DTB - DTW	11.71
Capacity per foot	0.16
3 Well Volumes	5.60
PURGE DATE	3/20/2012
PURGE TIME	1500
SAMPLE DAY	3/20/2012
SAMPLE TIME	1525
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	1504	7.02	10.55	4.594	4.119	3.47	53.4	-71.2
(2)	1507	6.81	10.85	4.580	4.076	3.44	29.7	-86.1
(3)	1512	6.84	10.70	4.485	4.014	3.38	29.1	-77.9
(4)	1517	6.81	10.06	4.525	4.000	3.37	29.0	-82.7

WEATHER CONDITIONS

Windy, cool, clear

WATER APPEARANCE

Cloudy, brown/yellow

SAMPLE LOG

Began with purge. Bailed ~ 6 gallons. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

GWM-2

GAUGE DATE	3/20/2012
GAUGE TIME	1555
DTB (feet) Depth to Bottom	18.81
DEDICATED PUMP	N
DTW (feet) Depth to Water	13.58
DTB - DTW	5.23
Capacity per foot	0.163
3 Well Volumes	2.50
PURGE DATE	3/20/2012
PURGE TIME	1558
SAMPLE DAY	3/20/2012
SAMPLE TIME	1610
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool, sunny, breezy

WATER APPEARANCE

Clear

SAMPLE LOG

Began with purge. Bailed ~ 2.5 gallons. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

GWM-3

GAUGE DATE	3/20/2012
GAUGE TIME	1615
DTB (feet) Depth to Bottom	17.80
DEDICATED PUMP	N
DTW (feet) Depth to Water	12.95
DTB - DTW	4.85
Capacity per foot	0.163
3 Well Volumes	2.40
PURGE DATE	3/20/2012
PURGE TIME	1616
SAMPLE DAY	3/20/2012
SAMPLE TIME	1625
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool, sunny, breezy

WATER APPEARANCE

clear to cloudy brown

SAMPLE LOG

Began with purge. Bailed ~ 2.5 gallons. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of in EP-1.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

Oil Sump LDU	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/20/2012
SAMPLE TIME	1010
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool, breezy, and sunny

WATER APPEARANCE

yellow w/ black solids, strong odor

SAMPLE LOG

Grab sample collected with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

East LDU		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)								
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA									
DTB - DTW	NA									
Capacity per foot	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA									
SAMPLE DAY	3/20/2012									
SAMPLE TIME	1030									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Cool, sunny, and breezy

WATER APPEARANCE

Clear to brown with odor

SAMPLE LOG

Collected grab samples with bailer, labeled and placed on ice in cooler.

West LDU		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)								
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA									
DTB - DTW	NA									
Capacity per foot	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA									
SAMPLE DAY	3/20/2012									
SAMPLE TIME	1040									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Cool, sunny, and breezy

WATER APPEARANCE

Clear

SAMPLE LOG

Collected grab samples with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Bailer

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

Infl to AL-2	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/20/2012
SAMPLE TIME	1340
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Windy, cool, clear skies

WATER APPEARANCE

Cloudy brown

SAMPLE LOG

Collected grab samples from north discharge pipe using plastic dipper, labeled and placed on ice in cooler.

Infl to EP-1	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/20/2012
SAMPLE TIME	1400
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Windy, cool, clear skies

WATER APPEARANCE

Cloudy brown

SAMPLE LOG

Discharge into EP-1 was under water. Grab sample collected from sluiceway between AL-2 and EP-1 using plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

AL-2 to EP-1	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/20/2012
SAMPLE TIME	1410
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool, breezy, sunny

WATER APPEARANCE

Cloudy, green/black

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

Infl to AL-1	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/21/2012
SAMPLE TIME	0740
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cold, sunny, calm

WATER APPEARANCE

Cloudy green/black

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper.

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

1st QTR 2012

Pilot Eff.	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/20/2012
SAMPLE TIME	1320
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool and windy

WATER APPEARANCE

Cloudy brown

SAMPLE LOG

Collected grab sample with plastic dipper as effluent was flowing, labeled and placed samples on ice in cooler.

NAPIS Eff.	
GAUGE DATE	NA
GAUGE TIME	NA
DTB (feet) Depth to Bottom	NA
DEDICATED PUMP	N
DTW (feet) Depth to Water	NA
DTB - DTW	NA
Capacity per foot	NA
3 Well Volumes	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	3/21/2012
SAMPLE TIME	750
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)								
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Cool, clear, calm

WATER APPEARANCE

clear, slight brown tint

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper.

Signature: Tom Fleener/Sean Ukele - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2012 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	3/15/2012	Product Thickness (ft)	0.030	N/A
GAUGE TIME	9:07	Volume of Product Purged (Gallons)	0.02	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	22	**Notes**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	29.31	PURGE TIME		
DTW (feet) Depth to Water	29.34	SAMPLE DAY		
DTB - DTW	13.70	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
3/15/2012	9:08	3/15/2012	9:15	
3/15/2012	10:25	3/15/2012	10:40	

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	3/15/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:20	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	N/A	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		No measurable product layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	24.54	SAMPLE DAY		
DTB - DTW	15.26	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
N/A				

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
Dedicated pump used for RW-1 to purge water.

SIGNATURE: /s/ Cheryl Johnson / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

2012 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	3/15/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:50	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	15	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.32	SAMPLE DAY		
DTB - DTW	10.27	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
3/15/2012	10:00	3/15/2012	10:10	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 15 gallons was bailed from this well.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	3/15/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:55	Volume of Product Purged (Gallons)		
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	17	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.46	SAMPLE DAY		
DTB - DTW	11.44	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
3/15/2012	10:12	3/15/2012	10:20	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 17 gallons was bailed from this well.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
3 foot disposable bailers.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

OW-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/13/2012	(1)	8:50	9.19	14.14	1.172	0.953	0.740	77.8	157.2
GAUGE TIME	8:35	(2)	9:00	8.93	13.18	1.038	0.873	0.680	18.6	124.7
DTB (feet) Depth to Bottom	94.55	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	3.38	WEATHER CONDITIONS: clear, warm, calm								
DTB - DTW	91.17									
Capacity per foot	0.65									
1 Well Volume	59									
3 Well Volumes	177									
PURGE DATE	6/13/2012									
PURGE TIME	8:50	WATER APPEARANCE: clear								
SAMPLE DAY	6/13/2012									
SAMPLE TIME	9:05									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Portable pump set to 90', purged ~ 20 gallons, collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

OW-10		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/13/2012	(1)	9:27	7.84	15.2	6.225	4.960	4.24	25.2	36
GAUGE TIME	9:20	(2)	9:36	7.54	13.8	3.553	2.954	2.42	18.0	22
DTB (feet) Depth to Bottom	60.33	(3)	9:48	7.54	13.7	3.234	2.689	2.21	16.7	29
DEDICATED PUMP	N	(4)	10:01	7.57	14.5	3.172	2.605	2.14	44.0	41
DTW (feet) Depth to Water	1.67	WEATHER CONDITIONS: clear, warm, calm								
DTB - DTW	58.66									
Capacity per foot	0.65									
1 Well Volume	38.200									
3 Well Volumes	114.00									
PURGE DATE	6/13/2012									
PURGE TIME	9:27	WATER APPEARANCE: clear								
SAMPLE DAY	6/13/2012									
SAMPLE TIME	10:05									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Portable pump set to 50', purged ~110 gallons, collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
2nd QTR 2012

OW-13		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/14/2012	(1)	8:19	8.48	13.50	0.988	0.817	0.630	82	-100.5
GAUGE TIME	8:15	(2)	8:35	8.27	13.20	0.968	0.814	0.630	38.2	-66.1
DTB (feet) Depth to Bottom	99.15	(3)	9:08	8.48	15.15	1.037	0.826	0.650	42.6	-40.7
DEDICATED PUMP	Y	(4)	9:40	8.50	15.68	1.050	0.838	0.650	26.8	-28.6
DTW (feet) Depth to Water	22.64	**WEATHER CONDITIONS** clear, warm, slight breeze								
DTB - DTW	76.51									
Capacity per foot	0.65									
1 Well Volume	50.000									
3 Well Volumes	150.00									
PURGE DATE	6/14/2012									
PURGE TIME	8:19	**WATER APPEARANCE** clear								
SAMPLE DAY	6/14/2012									
SAMPLE TIME	9:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Pumped approximately 150 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

OW-14		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/14/2012	(1)	7:55	7.44	14.5	1.992	1.615	1.29	70.7	-157
GAUGE TIME	7:46	(2)	7:58	7.24	14.2	1.967	1.606	1.28	31.4	-217
DTB (feet) Depth to Bottom	46.52	(3)	8:02	7.18	14.2	1.98	1.617	1.29	33.0	-219
DEDICATED PUMP	Y	(4)	8:05	7.20	14.3	1.971	1.618	1.30	21.9	-226
DTW (feet) Depth to Water	24.93	**WEATHER CONDITIONS** clear, calm								
DTB - DTW	21.59									
Capacity per foot	0.65									
1 Well Volume	14.000									
3 Well Volumes	42.00									
PURGE DATE	6/14/2012									
PURGE TIME	7:55	**WATER APPEARANCE** clear								
SAMPLE DAY	6/14/2012									
SAMPLE TIME	8:05									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Pumped approximately 45 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

OW-29		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/13/2012	(1)	13:20	7.91	14.08	1.382	1.121	0.880	77.4	101.7
GAUGE TIME	13:16	(2)	13:26	7.57	13.55	1.366	1.131	0.890	30	-37.7
DTB (feet) Depth to Bottom	51.08	(3)	13:38	7.68	14.30	1.396	1.144	0.900	23.1	-74.8
DEDICATED PUMP	Y	(4)	13:58	7.51	14.21	1.394	1.137	0.890	25.1	-82.4
DTW (feet) Depth to Water	19.88	**WEATHER CONDITIONS** clear, warm, breezy								
DTB - DTW	21.20									
Capacity per foot	0.65									
1 Well Volume	20.300									
3 Well Volumes	61.00									
PURGE DATE	6/13/2012									
PURGE TIME	13:20	**WATER APPEARANCE** clear								
SAMPLE DAY	6/13/2012									
SAMPLE TIME	14:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Pumped approximately 63 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

OW-30		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/14/2012	(1)	10:12	7.64	13.7	1.409	1.167	0.92	60.1	0
GAUGE TIME	10:09	(2)	10:15	7.37	13.3	1.382	1.156	0.97	34.2	5
DTB (feet) Depth to Bottom	49.90	(3)	10:19	7.35	13.2	1.375	1.155	0.91	30.4	-7
DEDICATED PUMP	Y	(4)	10:25	7.32	13.2	1.386	1.162	0.91	11.2	-5
DTW (feet) Depth to Water	24.28	**WEATHER CONDITIONS** clear, warm, breezy								
DTB - DTW	25.62									
Capacity per foot	0.65									
1 Well Volume	16.700									
3 Well Volumes	50.00									
PURGE DATE	6/14/2012									
PURGE TIME	10:10	**WATER APPEARANCE** clear								
SAMPLE DAY	6/14/2012									
SAMPLE TIME	10:25									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Pumped approximately 50 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

OW-50		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/13/2012	(1)	11:12	8.57	22.07	1.044	0.717	0.550	115.2	26.6
GAUGE TIME	11:03	(2)	11:15	8.41	14.61	0.862	0.701	0.540	29.9	-3.7
DTB (feet) Depth to Bottom	64.00	(3)	11:18	8.32	13.73	0.852	0.705	0.540	14.2	-36.8
DEDICATED PUMP	N	(4)	11:24	8.32	13.70	0.849	0.703	0.540	11.9	-4.8
DTW (feet) Depth to Water	17.02	**WEATHER CONDITIONS** clear, 76°, breezy								
DTB - DTW	46.98									
Capacity per foot	0.16									
1 Well Volume	7.500									
3 Well Volumes	22.50									
PURGE DATE	6/13/2012									
PURGE TIME	11:12	**WATER APPEARANCE** clear								
SAMPLE DAY	6/13/2012									
SAMPLE TIME	11:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Portable pump set to 55', purged ~ 23 gallons, collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

OW-52		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/13/2012	(1)	10:32	8.55	17.8	1.463	1.097	0.86	120.0	38
GAUGE TIME	10:27	(2)	10:37	8.44	13.7	0.806	0.670	0.51	26.0	-41
DTB (feet) Depth to Bottom	77.74	(3)	10:41	8.38	13.4	0.781	0.653	0.50	26.2	-100
DEDICATED PUMP	N	(4)	10:44	8.40	13.5	0.786	0.657	0.50	22.4	-110
DTW (feet) Depth to Water	15.79	**WEATHER CONDITIONS** clear, 76°, breezy								
DTB - DTW	61.95									
Capacity per foot	0.16									
1 Well Volume	9.910									
3 Well Volumes	30.00									
PURGE DATE	6/13/2012									
PURGE TIME	10:32	**WATER APPEARANCE** clear								
SAMPLE DAY	6/13/2012									
SAMPLE TIME	10:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Portable pump set to 70', purged ~ 30 gallons, collected water samples, labeled and placed on ice in cooler. Purge water disposed of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
2nd QTR 2012

NAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	11:37	7.74	20.87	1.690	1.187	0.930	56.7	52.9
GAUGE TIME	11:32	(2)	11:39	7.36	17.49	1.517	1.148	0.900	30	62.6
DTB (feet) Depth to Bottom	13.53	(3)	11:40	7.34	17.50	1.555	1.186	0.940	40.1	53.2
DEDICATED PUMP	N	(4)	11:42	7.26	16.16	1.577	1.233	0.970	28.1	57.0
DTW (feet) Depth to Water	7.39	**WEATHER CONDITIONS** clear, warm, breezy No surface water present in flush mount sump.								
DTB - DTW	6.14									
Capacity per foot	0.16									
1 Well Volume	0.980									
3 Well Volumes	2.95									
PURGE DATE	6/12/2012									
PURGE TIME	11:36	**WATER APPEARANCE** clear No surface water present in flush mount sump.								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	11:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS.

NAPIS-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	9:44	7.10	25.2	2.952	1.887	1.49	19.0	-177
GAUGE TIME	9:40	(2)	9:45	7.02	24.2	2.522	1.656	1.31	16.6	-147
DTB (feet) Depth to Bottom	13.61	(3)	9:47	7.00	24.1	2.451	1.621	1.28	13.0	-130
DEDICATED PUMP	NA	(4)	9:49	7.02	24.0	2.282	1.313	1.19	12.2	-127
DTW (feet) Depth to Water	8.09	**WEATHER CONDITIONS** clear, warm								
DTB - DTW	5.52									
Capacity per foot	0.16									
1 Well Volume	0.16,0.88									
3 Well Volumes	2.70									
PURGE DATE	6/12/2012									
PURGE TIME	9:44	**WATER APPEARANCE** No surface water present in flush mount sump. slightly cloudy								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	9:52									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

NAPIS-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	10:57	8.25	25.37	4.585	2.961	2.430	83.5	7.6
GAUGE TIME	10:36	(2)	11:04	7.91	21.04	4.217	2.968	2.440	58.6	14.5
DTB (feet) Depth to Bottom	30.42	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	7.70	**WEATHER CONDITIONS** clear, warm, calm No surface water present in flush mount sump.								
DTB - DTW	22.72									
Capacity per foot	0.16									
1 Well Volume	3.600									
3 Well Volumes	10.90									
PURGE DATE	6/12/2012									
PURGE TIME	10:57	**WATER APPEARANCE** clear								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	11:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed ~ 4 gallons, well not recharging, sampled well. Purge water disposed of at bundle pad upstream of the NAPIS.

KA-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivy (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	10:15	7.45	26.1	2.442	1.557	1.23	48.2	41
GAUGE TIME	10:13	(2)	10:21	7.42	24.4	2.738	1.801	1.43	15.3	5
DTB (feet) Depth to Bottom	23.20	(3)	10:29	7.51	23.3	3.683	2.480	2.02	22.6	10
DEDICATED PUMP	N	(4)	10:37	7.60	22.7	3.583	2.440	1.98	19.3	1
DTW (feet) Depth to Water	7.97	**WEATHER CONDITIONS** clear, warm								
DTB - DTW	15.23									
Capacity per foot	0.16									
1 Well Volume	2.430									
3 Well Volumes	7.30									
PURGE DATE	6/12/2012									
PURGE TIME	10:15	**WATER APPEARANCE** No surface water present in flush mount sump. cloudy, no odor								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	10:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Began with purge. Bailed approximately 7.5 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
2nd QTR 2012

GWM-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	14:03	7.04	15.8	5.268	4.140	3.49	101.0	-116
GAUGE TIME	13:55	(2)	14:06	7.00	12.4	4.702	4.013	3.38	37.6	-118
DTB (feet) Depth to Bottom	26.20	(3)	14:11	7.00	13.3	4.806	4.027	3.39	36.2	-91
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	15.56	WEATHER CONDITIONS clear, 87°, breezy								
DTB - DTW	10.64									
Capacity per foot	0.16									
1 Well Volume	1.700									
3 Well Volumes	5.10									
PURGE DATE	6/12/2012									
PURGE TIME	14:02	WATER APPEARANCE light brown/cloudy								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	14:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged ~3.5 Gal, well not recharging. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

GWM-2		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	NA							
GAUGE TIME	13:35	(2)								
DTB (feet) Depth to Bottom	18.81	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	14.96	**WEATHER CONDITIONS** clear, hot (86)°, windy								
DTB - DTW	3.85									
Capacity per foot	0.16									
1 Well Volume	0.620									
3 Well Volumes	1.80									
PURGE DATE	6/12/2012									
PURGE TIME	13:36	**WATER APPEARANCE** clear/partly cloudy								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	13:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed ~3/4 Gal, sampled well. 18.62 DTW after purge dry. Purge water disposed of at bundle pad upstream of the NAPIS.

GWM-3		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	NA							
GAUGE TIME	14:31	(2)								
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	14.70	**WEATHER CONDITIONS** clear, 87°, windy								
DTB - DTW	3.10									
Capacity per foot	0.16									
1 Well Volume	0.500									
3 Well Volumes	1.50									
PURGE DATE	6/12/2012									
PURGE TIME	14:35	**WATER APPEARANCE** light brown								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	14:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed ~1/2 gal, well low, sampled well. 17.30 DTW after well was bailed dry. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

Oil Sump LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	2.85	**WEATHER CONDITIONS** clear, hot, breezy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** yellow, black floating solids								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	12:10									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample collected with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

East LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	1.23	**WEATHER CONDITIONS** clear, hot, breezy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** yellow								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	12:35									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with bailer, labeled and placed on ice in cooler.

West LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	6/12/2012	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	0.40	**WEATHER CONDITIONS** clear, hot, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** clear								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	12:35									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

Infl to AL-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, 86°, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** light brown								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	15:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples from north discharge pipe using plastic dipper, labeled and placed on ice in cooler.

Infl to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, 86°, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** light brown								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	16:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Discharge into EP-1 was under water. Grab sample collected from sluiceway between AL-2 and EP-1 using plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

AL-2 to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, 85°, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** light brown								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	16:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

Infl to AL-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE		(1)	NA							
GAUGE TIME		(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, warm, breezy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** light green								
SAMPLE DAY	6/14/2012									
SAMPLE TIME	10:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper.

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WESTERN REFINING - GALLUP REFINERY

2nd QTR 2012

Pilot Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, 86°, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** yellow								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	16:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample with plastic dipper as effluent was flowing, labeled and placed samples on ice in cooler.

NAPIS Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** clear, 86°, windy								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** light to dark brown								
SAMPLE DAY	6/12/2012									
SAMPLE TIME	15:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper.

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
2012 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/4/2012	Product Thickness (ft)	0.020	N/A
GAUGE TIME	9:00	Volume of Product Purged (Gallons)	0.050	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	40	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	29.39	PURGE TIME		
DTW (feet) Depth to Water	29.41	SAMPLE DAY		
DTB - DTW	13.63	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
6/4/2012	9:00	6/4/2012	9:15	
6/4/2012	10:00	6/4/2012	10:35	

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/4/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:50	Volume of Product Purged (Gallons)		
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	N/A	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	24.66	SAMPLE DAY		
DTB - DTW	15.14	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
N/A				

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
Dedicated portable pump used for RW-1.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

2012 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/4/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:20	Volume of Product Purged (Gallons)		
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	10	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.37	SAMPLE DAY		
DTB - DTW	10.22	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
6/4/2012	9:38	6/4/2012	9:44	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 10 gallons was bailed from this well.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	6/4/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	9:25	Volume of Product Purged (Gallons)		
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	20	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.54	SAMPLE DAY		
DTB - DTW	11.36	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
6/4/2012	9:26	6/4/2012	9:35	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 20 gallons was bailed from this well.

INSTRUMENTS USED:

YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

OW-10		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	9:00	7.47	13.76	6.345	5.251	4.51	34	27.2
GAUGE TIME	8:50	(2)	9:25	7.61	13.54	4.379	3.641	3.04	43	25.2
DTB (feet) Depth to Bottom	60.33	(3)	9:40	7.65	13.45	4.273	3.562	2.98	33.5	36.3
DEDICATED PUMP	N	(4)	9:55	7.62	13.61	4.261	3.536	2.95	22.9	24.5
DTW (feet) Depth to Water	2.45	**WEATHER CONDITIONS** Sunny, calm, 70°s								
DTB - DTW	57.88									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	42.830									
3 Well Volumes (gal.)	128.49									
PURGE DATE	8/21/2012									
PURGE TIME	9:00	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/22/2012									
SAMPLE TIME	13:35									
PUMP DEPTH (feet)	55									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with portable pump, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler.

OW-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	10:35	9.08	13.33	1.044	0.874	0.68	41.8	-21.8
GAUGE TIME	10:25	(2)	11:00	9.07	13.94	1.06	0.869	0.67	17.7	-34.2
DTB (feet) Depth to Bottom	94.55	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	Y	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	0.00	**WEATHER CONDITIONS** Sunny, calm, 80°s								
DTB - DTW	94.55									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	69.97									
3 Well Volumes (gal.)	209.90									
PURGE DATE	8/21.12									
PURGE TIME	13:35	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/22/2012									
SAMPLE TIME	10:10									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well went dry after purging about 70 gallons, stopped purge. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

OW-11		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	13:30	8.65	15.23	2.387	1.907	1.54	35	-19.9
GAUGE TIME	13:15	(2)	13:40	8.61	14.37	2.317	1.891	1.52	33.9	-16.9
DTB (feet) Depth to Bottom	65.79	(3)	13:55	8.61	15.53	2.373	1.881	1.51	32.6	-14.3
DEDICATED PUMP	N	(4)	14:00	8.62	15.43	2.257	1.836	1.48	27.8	-11.2
DTW (feet) Depth to Water	21.05	**WEATHER CONDITIONS** Partly cloudy, breezy, 80°s								
DTB - DTW	44.74									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	33.11									
3 Well Volumes (gal.)	99.32									
PURGE DATE	8/21/2012									
PURGE TIME	13:30	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/22/2012									
SAMPLE TIME	9:25									
PUMP DEPTH (feet)	61									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with portable pump, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler.

OW-12		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	7:20	10.48	13.63	0.984	0.817	0.63	50.3	-143.3
GAUGE TIME	13:00	(2)	8:25	9.78	15.66	0.9	0.712	0.55	50.7	-111.3
DTB (feet) Depth to Bottom	128.85	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	48.13	**WEATHER CONDITIONS** Sunny, calm, 60°s								
DTB - DTW	80.72									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	59.733									
3 Well Volumes (gal.)	179.20									
PURGE DATE	8/21/2012									
PURGE TIME	7:20	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/22/2012									
SAMPLE TIME	6:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

One casing volume was purged, via portable pump, before well went dry, water disposed of at the bundle pad upstream of the

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

OW-13		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	13:40	8.30	13.43	0.967	0.806	0.620	17.7	-82.4
GAUGE TIME	13:35	(2)	13:52	8.35	13.09	0.960	0.807	0.620	17.9	-75.0
DTB (feet) Depth to Bottom	99.15	(3)	14:10	8.33	13.11	0.959	0.806	0.620	18.2	-71.4
DEDICATED PUMP	Y	(4)	14:30	8.35	13.39	0.964	0.804	0.620	14.6	-71.2
DTW (feet) Depth to Water	23.10	**WEATHER CONDITIONS** Partly Sunny, 80°F, Calm								
DTB - DTW	76.05									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	56.277									
3 Well Volumes (gal.)	168.83									
PURGE DATE	8/22/2012									
PURGE TIME	13:35	**WATER APPEARANCE** clear								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	12:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler. Three (3) full drums at well.

OW-14		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	13:10	7.40	13.89	1.918	1.582	1.26	21.7	-133.7
GAUGE TIME	13:05	(2)	13:15	7.40	13.72	1.924	1.593	1.27	15.7	-134.1
DTB (feet) Depth to Bottom	46.52	(3)	13:30	7.34	13.74	19.45	1.610	1.28	15.0	-130.6
DEDICATED PUMP	N	(4)	13:25	7.31	13.84	1.946	1.606	1.28	14.0	-127.0
DTW (feet) Depth to Water	25.11	**WEATHER CONDITIONS** Cloudy, breezy, 70°s								
DTB - DTW	21.41									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	15.843									
3 Well Volumes (gal.)	47.53									
PURGE DATE	8/22/2012									
PURGE TIME	13:10	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	12:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with portable pump, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler. One (1) drum half full.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

OW-29		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	15:00	7.68	12.93	1.346	1.137	0.890	17.8	14.1
GAUGE TIME	14:55	(2)	15:07	7.66	13.55	1.355	1.127	0.880	21.7	-47.9
DTB (feet) Depth to Bottom	51.08	(3)	15:20	7.57	13.42	1.361	1.134	0.890	9.6	-76.1
DEDICATED PUMP	Y	(4)	15:38	7.62	13.50	1.359	1.132	0.890	11.12	-75.0
DTW (feet) Depth to Water	20.04	**WEATHER CONDITIONS** Mostly cloudy, 80°s, breezy								
DTB - DTW	31.04									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	22.970									
3 Well Volumes (gal.)	68.91									
PURGE DATE	8/22/2012									
PURGE TIME	15:00	**WATER APPEARANCE** Clear, No odor, No sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	12:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. After first casing decreased flow rate as water level was dropping. Collected water samples, labeled and placed on ice in cooler. One (1) half-full drum.

OW-30		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	11:30	7.88	12.84	1.373	1.163	0.91	30.6	44.9
GAUGE TIME	11:25	(2)	11:40	7.49	12.59	1.370	1.167	0.92	18.7	3.6
DTB (feet) Depth to Bottom	49.90	(3)	11:50	7.44	12.64	1.371	1.167	0.92	20.3	-11.5
DEDICATED PUMP	Y	(4)	12:00	7.42	12.63	1.371	1.166	0.92	20.6	-10.2
DTW (feet) Depth to Water	24.48	**WEATHER CONDITIONS** Cloudy, sprinkles (rain)								
DTB - DTW	25.42									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	18.810									
3 Well Volumes (gal.)	56.43									
PURGE DATE	8/22/2012									
PURGE TIME	11:30	**WATER APPEARANCE** Clear, no sheen, no odor								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	11:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler. Two (2) full drums at well.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
3rd QTR 2012

OW-50		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	16:35	8.48	15.19	0.877	0.701	0.540	29.9	-32.8
GAUGE TIME	16:30	(2)	16:40	8.53	13.84	0.850	0.702	0.540	22.5	-52.9
DTB (feet) Depth to Bottom	64.00	(3)	16:45	8.49	13.72	0.847	0.702	0.540	25.6	-63.5
DEDICATED PUMP	N	(4)	16:50	8.49	13.73	0.848	0.702	0.540	19.1	-82.5
DTW (feet) Depth to Water	17.44	**WEATHER CONDITIONS** Sunny, breezy, 70°s								
DTB - DTW	46.56									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	7.589									
3 Well Volumes (gal.)	22.77									
PURGE DATE	8/22/2012									
PURGE TIME	16:35	**WATER APPEARANCE** Silty, cloudy brown, no odor, no sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	13:10									
PUMP DEPTH (ft)	54.0									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with portable pump, water disposed of at the bundle pad upstream of the NAPIS. Water clear by third casing volume. Collected water samples with bailer, labeled and placed on ice in cooler.

OW-52		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	16:00	8.69	17.05	0.932	1.615	0.55	41.2	-79.7
GAUGE TIME	15:50	(2)	16:08	8.49	13.84	0.794	1.606	0.50	19.3	-127.0
DTB (feet) Depth to Bottom	77.74	(3)	16:15	8.41	13.76	0.791	1.617	0.50	15.3	-134.2
DEDICATED PUMP	N	(4)	16:22	8.42	13.81	0.794	1.618	0.50	18.4	-140.6
DTW (feet) Depth to Water	16.16	**WEATHER CONDITIONS** Cloudy, breezy, 70°s								
DTB - DTW	61.58									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	10.038									
3 Well Volumes (gal.)	30.11									
PURGE DATE	8/22/2012									
PURGE TIME	16:00	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	12:50									
PUMP DEPTH	70.0									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with portable pump, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler. One (1) full drum at well.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

GWM-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	18:40	7.13	14.00	4.655	3.835	3.22	34.1	-112.8
GAUGE TIME	--	(2)	18:45	6.91	13.47	4.655	3.880	3.26	18.3	-90.6
DTB (feet) Depth to Bottom	26.2	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	16.29	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	9.91									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	1.62									
3 Well Volumes (gal.)	4.85									
PURGE DATE	8/21/2012									
PURGE TIME	--	**WATER APPEARANCE** Light brown, cloudy								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	18:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well started going dry after bailing about 3.0 gallons. Collected samples with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.
Plastic dipper

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

GWM-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	NA							
GAUGE TIME	--	(2)								
DTB (feet) Depth to Bottom	18.81	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	15.79		**WEATHER CONDITIONS** Sunny, 80°s							
DTB - DTW	3.02									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	0.49									
3 Well Volumes (gal.)	1.48									
PURGE DATE	8/21/2012									
PURGE TIME	18:20		**WATER APPEARANCE** Clear, no odor, no sheen							
SAMPLE DAY	8/21/2012									
SAMPLE TIME	18:35									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed approximately 0.75 gallons. Purge water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

GWM-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	NA							
GAUGE TIME	--	(2)								
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	15.45		**WEATHER CONDITIONS** Sunny, 80°s							
DTB - DTW	2.35									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	0.38									
3 Well Volumes (gal.)	1.15									
PURGE DATE	8/21/2012									
PURGE TIME	18:00		**WATER APPEARANCE** Cloudy, brown, no odor, no sheen							
SAMPLE DAY	8/21/2012									
SAMPLE TIME	18:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed approximately 0.50 gallons. Purge water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

NAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	19:30	7.79	20.8	1.63	1.152	0.9	23.6	-66
GAUGE TIME	19:30	(2)	19:32	7.54	20.45	1.691	1.21	0.95	29.2	-47.1
DTB (feet) Depth to Bottom	13.53	(3)	19:34	7.42	20.64	1.63	1.157	0.9	29.5	-40.6
DEDICATED PUMP	N	(4)	19:36	7.43	20.18	1.646	1.178	0.92	29.2	-32
DTW (feet) Depth to Water	7.07	**WEATHER CONDITIONS** Cloudy, 70°s								
DTB - DTW	6.46									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	1.05									
3 Well Volumes (gal.)	3.16									
PURGE DATE	8/20/2012									
PURGE TIME	19:30	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	14:55									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed about three well volumes. Purge water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

NAPIS-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	19:10	7.42	26.23	2.357	1.497	1.18	22.5	-162.6
GAUGE TIME	19:10	(2)	19:12	7.16	25.99	2.386	1.523	1.2	20.2	-171.9
DTB (feet) Depth to Bottom	13.61	(3)	19:14	7.16	25.98	2.39	1.525	1.2	20.6	-189
DEDICATED PUMP	N	(4)	19:16	7.17	25.96	2.395	1.529	1.18	20.3	-186.9
DTW (feet) Depth to Water	7.95	**WEATHER CONDITIONS** Cloudy, 70°s								
DTB - DTW	5.66									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	0.923									
3 Well Volumes (gal.)	2.77									
PURGE DATE	8/20/2012									
PURGE TIME	19:10	**WATER APPEARANCE** clear, no odor, no sheen								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	16:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler.

NAPIS-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	18:00	9.33	25.75	1.339	0.859	0.66	25.6	16.8
GAUGE TIME	NA	(2)	18:40	8.19	21.4	3.035	2.117	1.71	24.1	-15.4
DTB (feet) Depth to Bottom	30.42	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	7.41	**WEATHER CONDITIONS** Cloudy, 70°s								
DTB - DTW	23.01									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	3.75									
3 Well Volumes (gal.)	11.25									
PURGE DATE	8/20/2012									
PURGE TIME	18:00	**WATER APPEARANCE** cloudy, no odor, no sheen								
SAMPLE DAY	--									
SAMPLE TIME	--									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well went dry after bailing 5 gallons. Purge water disposed of at the bundle pad upstream of the NAPIS. Well did not recharge enough for sample, no sample collected.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

KA-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	18:50	7.52	26.71	2.585	1.629	1.29	25.7	28.2
GAUGE TIME	--	(2)	18:55	7.5	24.55	3.531	2.317	1.87	23.1	21.7
DTB (feet) Depth to Bottom	23.20	(3)	19:00	7.58	23.32	3.658	2.432	1.97	23.6	19.4
DEDICATED PUMP	N	(4)	19:05	7.65	23.06	3.826	2.59	2.11	29.6	19.6
DTW (feet) Depth to Water	7.98	**WEATHER CONDITIONS** Cloudy, 70°s								
DTB - DTW	15.22									
Capacity per foot (gal.)	2.48									
1 Well Volume (gal.)	2.480									
3 Well Volumes (gal.)	7.44									
PURGE DATE	8/20/2012									
PURGE TIME	18:50	**WATER APPEARANCE** clear, warm, no odor, no sheen								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	15:45									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed about three well volumes, water disposed at the bundle pad upstream of NAPS, last bail was cloudy red. Collected water samples with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

OILSUMP LDU		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	NA							
GAUGE TIME	19:00	(2)								
DTB (feet) Depth to Bottom	NM	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	2.21	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Yellow, black flakes								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	19:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

East LDU		TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	NA							
GAUGE TIME	19:20	(2)								
DTB (feet) Depth to Bottom	NM	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	0.85	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Yellow								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	19:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

West LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/21/2012	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	0.51	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** clear, odor, no sheen								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	19:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

INFL to AL-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Light brown								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	17:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INFL to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Light brown								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	17:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Plastic dipper

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

AL-2 to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Light brown								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	17:10									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INFL to AL-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** NA								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** NA								
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

System offline for new system; no sample collected.

INSTRUMENTS USED:

Plastic dipper

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

PILOT EFF		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	WEATHER CONDITIONS: Sunny, 80°s								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	WATER APPEARANCE: Yellow								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	16:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

NAPIS-EFF		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA	WEATHER CONDITIONS: NA								
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA	WATER APPEARANCE: NA								
SAMPLE DAY	--									
SAMPLE TIME	--									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

System offline; new system running; no sample collected.

INSTRUMENTS USED:

Plastic dipper

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

EP-2 Inlet			**TEST PARAMATERS**							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	NA	(4)								
DTW (feet) Depth to Water	NA		**WEATHER CONDITIONS** Sunny, 80°s							
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA		**WATER APPEARANCE** Light brown							
SAMPLE DAY	8/21/2012									
SAMPLE TIME	19:55									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Grab sample. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.
Plastic dipper

Signature: Jacob Berreth

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

BW-1A		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	NA							
GAUGE TIME	16:00	(2)								
DTB (feet) Depth to Bottom	37.62	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	ND		**WEATHER CONDITIONS** Sunny, 70°s							
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA		**WATER APPEARANCE** NA							
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well dry. No sample collected.

BW-1B		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	NA							
GAUGE TIME	16:00	(2)								
DTB (feet) Depth to Bottom	67.45	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	ND		**WEATHER CONDITIONS** Sunny, 70°s							
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA		**WATER APPEARANCE** NA							
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well dry. No sample collected.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

BW-1C		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	8:40	8.07	12.91	1.021	0.851	0.61	18.6	-88.5
GAUGE TIME	16:00	(2)	8:53	8.03	12.90	1.023	0.855	0.61	17.2	-84.2
DTB (feet) Depth to Bottom	136.39	(3)	9:07	8.01	12.86	1.023	0.857	0.61	15.9	-81.8
DEDICATED PUMP	Y	(4)	9:20	7.99	12.85	1.024	0.859	0.61	16.4	-81.2
DTW (feet) Depth to Water	7.30	**WEATHER CONDITIONS** Sunny, warm, 70°s								
DTB - DTW	129.06									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	21.037									
3 Well Volumes (gal.)	63.11									
PURGE DATE	8/24/2012									
PURGE TIME	8:40	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/24/2012									
SAMPLE TIME	9:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

BW-2A		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	19:05	8.44	12.86	1.036	0.876	0.68	19.2	-75.6
GAUGE TIME	--	(2)	19:15	8.06	13.42	10.57	0.882	0.68	13.5	-136.3
DTB (feet) Depth to Bottom	67.57	(3)	19:25	8.06	13.22	1.057	0.887	0.69	10.8	-149.5
DEDICATED PUMP	Y	(4)	19:35	8.09	13.06	1.053	0.887	0.69	17.4	-138.6
DTW (feet) Depth to Water	32.26	**WEATHER CONDITIONS** Sunny, 60°s, breezy								
DTB - DTW	35.31									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	5.76									
3 Well Volumes (gal.)	17.27									
PURGE DATE	8/23/2012									
PURGE TIME	19:05	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/24/2012									
SAMPLE TIME	10:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

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WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

BW-2B		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	19:20	7.88	12.69	1.727	1.472	1.17	9.5	-119.7
GAUGE TIME	--	(2)	19:35	8.00	12.73	1.747	1.483	1.18	12.3	-111.4
DTB (feet) Depth to Bottom	92.26	(3)	19:45	8.00	12.87	1.744	1.476	1.17	13.9	-103.4
DEDICATED PUMP	Y	(4)	19:55	7.98	13.10	1.750	1.471	1.17	11.3	-100.1
DTW (feet) Depth to Water	27.83									
DTB - DTW	64.43									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	10.502									
3 Well Volumes (gal.)	31.51									
PURGE DATE	8/23/2012									
PURGE TIME	19:20									
SAMPLE DAY	8/24/2012									
SAMPLE TIME	10:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Cloudy, temperature approximately 65°, breezy

WATER APPEARANCE

Clear, no odor, no sheen

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

BW-2C		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	18:35	9.14	14.15	1.058	0.867	0.67	45.0	19.3
GAUGE TIME	--	(2)	18:50	9.11	13.92	1.050	0.866	0.67	34.5	1.8
DTB (feet) Depth to Bottom	152.84	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	Y	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	20.35									
DTB - DTW	132.49									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	21.60									
3 Well Volumes (gal.)	64.79									
PURGE DATE	8/23/2012									
PURGE TIME	18:35									
SAMPLE DAY	8/24/2012									
SAMPLE TIME	9:45									
PUMP DEPTH	141									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS

Cloudy (~50%), wind (SW ~5-10mph), temperature ~70°F

WATER APPEARANCE

Clear, no odor, no sheen

SAMPLE LOG

19:00 -Well dry at 2 casing volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

BW-3A

GAUGE DATE	8/23/2012
GAUGE TIME	--
DTB (feet) Depth to Bottom	52.35
DEDICATED PUMP	--
DTW (feet) Depth to Water	ND
DTB - DTW	NA
Capacity per foot (gal.)	NA
1 Well Volume (gal.)	NA
3 Well Volumes (gal.)	NA
PURGE DATE	NA
PURGE TIME	NA
SAMPLE DAY	NA
SAMPLE TIME	NA
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	NA							
(2)								
(3)								
(4)								

WEATHER CONDITIONS

Clear, 60°s, breezy

WATER APPEARANCE

NA

SAMPLE LOG

Well dry. No sample collected.

BW-3B

GAUGE DATE	8/20/2012
GAUGE TIME	14:00
DTB (feet) Depth to Bottom	69.40
DEDICATED PUMP	Y
DTW (feet) Depth to Water	33.13
DTB - DTW	36.27
Capacity per foot (gal.)	0.163
1 Well Volume (gal.)	5.91
3 Well Volumes (gal.)	17.74
PURGE DATE	8/22/2012
PURGE TIME	19:40
SAMPLE DAY	8/23/2012
SAMPLE TIME	17:45
PUMP DEPTH	NA
DTW (feet) at end of Purging	NA

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	19:40	8.48	12.88	1.196	1.011	0.79	36.0	-137.2
(2)	19:46	8.2	13.04	1.184	0.997	0.78	12.2	-159.2
(3)	19:52	8.22	13.15	1.181	0.994	0.77	10.7	-168.2
(4)	NA	NA	NA	NA	NA	NA	NA	NA

WEATHER CONDITIONS

Clear, 60°s, breezy

WATER APPEARANCE

Cloudy, brown, no odor, no sheen

SAMPLE LOG

Well dry after ~13 gallons purged (2+ casings). Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

BW-3C		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
8/20/2012	8/23/2012	(1)	20:05	8.64	12.95	1.207	1.019	0.80	25.2	-163.30
GAUGE TIME	14:00	(2)	NA	NA	NA	NA	NA	NA	NA	NA
DTB (feet) Depth to Bottom	154.55	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	7.77	**WEATHER CONDITIONS** Dusk, 60°s, breezy								
DTB - DTW	146.78									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	23.93									
3 Well Volumes (gal.)	71.78									
PURGE DATE	8/22/2012									
PURGE TIME	20:05	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	17:40									
PUMP DEPTH	140									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Portable pump full extension. Well dry after one casing volume (~25 gallons).Collected water samples with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

RW-1			TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	NA							
GAUGE TIME	10:40	(2)								
DTB (feet) Depth to Bottom	43.04	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	32.51		**WEATHER CONDITIONS** Sprinkles, 60°s, breezy							
DTB - DTW	10.53									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	7.79									
3 Well Volumes (gal.)	23.38									
PURGE DATE	8/23/2012									
PURGE TIME	10:40		**WATER APPEARANCE** Clear, odor, product							
SAMPLE DAY	8/23/2012									
SAMPLE TIME	10:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Approximately 2 feet of product in well. Sample collected via bailer, below product, placed on ice in cooler.

RW-2			TEST PARAMATERS							
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
8/20/2012	8/24/2012	(1)	NA							
GAUGE TIME	8:10	(2)								
DTB (feet) Depth to Bottom	39.80	(3)								
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	27.89		**WEATHER CONDITIONS** Sunny, 70°s, breezy							
DTB - DTW	11.91									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	8.81									
3 Well Volumes (gal.)	26.44									
PURGE DATE	8/24/2012									
PURGE TIME	8:10		**WATER APPEARANCE** Clear, odor, no sheen							
SAMPLE DAY	8/24/2012									
SAMPLE TIME	8:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes with bailer, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
3rd QTR 2012

RW-5		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)								
GAUGE TIME	10:00	(2)								
DTB (feet) Depth to Bottom	39.59	(3)				NA				
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	29.46									
DTB - DTW	10.13									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	7.50									
3 Well Volumes (gal.)	22.49									
PURGE DATE	8/23/2012									
PURGE TIME	9:30									
SAMPLE DAY	8/23/2012									
SAMPLE TIME	10:00									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS
Cloudy, 60°s, breezy

WATER APPEARANCE
Cloudy, gray, odor, sheen

SAMPLE LOG

Purged about three well volumes with bailer, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

RW-6		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
8/20/2012	8/22/2012	(1)								
GAUGE TIME	10:00	(2)								
DTB (feet) Depth to Bottom	40.90	(3)				NA				
DEDICATED PUMP	N	(4)								
DTW (feet) Depth to Water	29.56									
DTB - DTW	11.34									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	8.39									
3 Well Volumes (gal.)	25.17									
PURGE DATE	8/23/2012									
PURGE TIME	9:30									
SAMPLE DAY	8/23/2012									
SAMPLE TIME	10:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

WEATHER CONDITIONS
Cloudy, 60°s, breezy

WATER APPEARANCE
Cloudy, brown, odor, sheen

SAMPLE LOG

Purged about three well volumes with bailer, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
2012 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	8/13/2012	Product Thickness (ft)	0.590	N/A
GAUGE TIME	10:30	Volume of Product Purged (Gallons)	0.400	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	40	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	29.54	PURGE TIME		
DTW (feet) Depth to Water	30.13	SAMPLE DAY		
DTB - DTW	12.91	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
8/13/2012	11:30	8/13/2012	12:00	
8/13/2012	13:00	8/13/2012	13:20	

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	8/13/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	11:25	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	N/A	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		No measurable product layer
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	24.71	SAMPLE DAY		
DTB - DTW	15.09	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
N/A				

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated portable pump used for RW-1

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
2012 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	8/13/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	10:50	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	10	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.49	SAMPLE DAY		
DTB - DTW	10.10	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
8/13/2012	11:10	8/13/2012	11:15	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 10 gallons was bailed from this well.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	8/13/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	11:00	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	15	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.57	SAMPLE DAY		
DTB - DTW	11.33	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
8/13/2012	11:00	8/13/2012	11:08	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 15 gallons was bailed from this well.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

MW-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	20:00	9.20	12.79	0.857	0.726	0.560	44.0	-57.4
GAUGE TIME	9:00	(2)	20:05	9.32	13.20	0.865	0.726	0.560	140.7	-29.8
DTB (feet) Depth to Bottom	130.83	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	Y	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	7.70	**WEATHER CONDITIONS** Cloudy, breezy, 60°s								
DTB - DTW	123.80									
Capacity per foot (gal.)	1.02									
1 Well Volume (gal.)	126									
3 Well Volumes (gal.)	376.78									
PURGE DATE	8/23/2012									
PURGE TIME	20:00	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/24/2012									
SAMPLE TIME	10:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well went dry after two casings. Collected water samples, labeled and placed on ice in cooler.

MW-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	14:20	9.28	13.56	0.884	0.734	0.56	17.9	-40.7
GAUGE TIME	8:55	(2)	15:00	9.32	14.10	0.891	0.731	0.56	20.7	-51.6
DTB (feet) Depth to Bottom	137.48	(3)	16:00	9.27	14.24	0.899	0.732	0.56	20.3	-23.2
DEDICATED PUMP	Y	(4)	17:00	9.32	13.94	0.895	0.737	0.57	20.1	-23.3
DTW (feet) Depth to Water	9.97	**WEATHER CONDITIONS** Partly cloudy, breezy, 70°s								
DTB - DTW	127.51									
Capacity per foot (gal.)	1.02									
1 Well Volume (gal.)	130.060									
3 Well Volumes (gal.)	390.18									
PURGE DATE	8/23/2012									
PURGE TIME	14:20	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/24/2012									
SAMPLE TIME	10:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

MW-4		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	13:55	8.97	13.72	1.187	0.770	0.600	23.2	82.3
GAUGE TIME	13:50	(2)	15:00	8.98	14.41	1.206	0.780	0.600	23.5	44.7
DTB (feet) Depth to Bottom	121.72	(3)	16:00	8.90	14.92	1.159	0.75	0.58	29.1	46.4
DEDICATED PUMP	Y	(4)	16:45	8.91	13.90	1.178	0.76	0.59	28.6	45.3
DTW (feet) Depth to Water	7.76	**WEATHER CONDITIONS** Sunny, winds NNW, 80°s								
DTB - DTW	113.96									
Capacity per foot (gal.)	1.02									
1 Well Volume (gal.)	116.239									
3 Well Volumes (gal.)	348.72									
PURGE DATE	8/20/2012									
PURGE TIME	13:50	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/21/2012									
SAMPLE TIME	20:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

MW-5		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/22/2012	(1)	17:35	9.29	13.09	0.9350	0.785	0.61	31.3	-30
GAUGE TIME	17:30	(2)	18:35	8.99	13.59	1.1090	0.922	0.72	42.9	5
DTB (feet) Depth to Bottom	130.83	(3)	19:00	9.31	13.83	0.90	0.744	0.57	29.3	28
DEDICATED PUMP	Y	(4)	19:25	9.31	13.38	0.8960	0.748	0.58	21.1	-0.3
DTW (feet) Depth to Water	11.40	**WEATHER CONDITIONS** Winds ESE @ 20mph; cloudy, 70°s								
DTB - DTW	119.43									
Capacity per foot (gal.)	0.74									
1 Well Volume (gal.)	88.378									
3 Well Volumes (gal.)	265.13									
PURGE DATE	8/22/2012									
PURGE TIME	17:35	**WATER APPEARANCE** Clear, no odor, no sheen								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	8:05									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Purged about three well volumes. Disposed of purge water at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
3rd QTR 2012

SMW-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/20/2012	(1)	17:10	7.67	12.64	7.702	6.555	5.72	62.4	15.2
GAUGE TIME	13:00	(2)	17:15	7.47	12.57	7.925	6.752	5.86	33.9	15.2
DTB (feet) Depth to Bottom	52.80	(3)	17:20	7.54	12.68	7.834	6.668	5.84	54.3	21.8
DEDICATED PUMP	N	(4)	17:25	7.51	13	7.946	6.692	5.84	66.1	27.9
DTW (feet) Depth to Water	25.20	**WEATHER CONDITIONS** Sunny, 10 mph SW wind, 70°s								
DTB - DTW	27.60									
Capacity per foot (gal.)	0.16									
1 Well Volume (gal.)	4.5									
3 Well Volumes (gal.)	13.50									
PURGE DATE	8/22/2012									
PURGE TIME	17:10	**WATER APPEARANCE** brown, no odor, no sheen, silty								
SAMPLE DAY	8/23/2012									
SAMPLE TIME	7:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Bailed about three well volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples with bailer, labeled and placed on ice in cooler.

SMW-4		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	8/23/2012	(1)	8:25	8.82	12.92	0.987	0.834	0.65	18.3	15.9
GAUGE TIME	8:20	(2)	8:32	8.91	13.70	1.000	0.829	0.64	12.8	-11.6
DTB (feet) Depth to Bottom	69.68	(3)	8:39	8.79	13.29	1.012	0.847	0.66	16.3	-17.0
DEDICATED PUMP	Y	(4)	8:46	8.77	13.36	1.014	0.852	0.67	15.4	-21.6
DTW (feet) Depth to Water	29.16	**WEATHER CONDITIONS** Cloudy, 60°s, calm								
DTB - DTW	40.52									
Capacity per foot (gal.)	0.163									
1 Well Volume (gal.)	6.6									
3 Well Volumes (gal.)	19.80									
PURGE DATE	8/23/2012									
PURGE TIME	8:25	**WATER APPEARANCE** Cloudy, gray, no odor, no sheen								
SAMPLE DAY	8/24/2012									
SAMPLE TIME	10:40									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Well dry after 3 casing volumes, water disposed of at the bundle pad upstream of the NAPIS. Collected water samples, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.
Disposable bailer - polyethylene bailer (1.5" x 36" OAL), individually sealed.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Conrad Morgan/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

PW-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	NA							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	Y	(4)								
DTW (feet) Depth to Water	NA		**WEATHER CONDITIONS** Mostly sunny, 80°s, breezy							
DTB - DTW	NA									
Capacity per foot (gal.)	NA									
1 Well Volume (gal.)	NA									
3 Well Volumes (gal.)	NA									
PURGE DATE	NA									
PURGE TIME	NA		**WATER APPEARANCE** Cloudy, gray, odor, no sheen							
SAMPLE DAY	8/24/2012									
SAMPLE TIME	14:30									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample; purged approximately 3 gallons, water disposed of at the bundle pad upstream of the NAPIS.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
55 gallon drum or 5-gallon bucket to catch purge water.

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

OW-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	7:15	8.53	9.52	1.332	0.866	0.67	49.6	-18.9
GAUGE TIME	6:30	(2)	7:25	8.86	9.83	1.368	0.888	0.69	34.3	4.3
DTB (feet) Depth to Bottom	94.55	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	0.12	WEATHER CONDITIONS: Clear, 20's, calm.								
DTB - DTW	94.43									
Capacity per foot	0.74									
1 Well Volume	69.88									
3 Well Volumes	210									
PURGE DATE	11/27/2012									
PURGE TIME	7:15	WATER APPEARANCE: Clear, no odor, no sheen.								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	7:25									
PUMP DEPTH	88									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Portable pump set to 88', purged ~ 20 gallons, collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

OW-10		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	8:30	6.88	11.65	13.100	8.505	7.56	51.6	50.0
GAUGE TIME	7:55	(2)	8:44	7.22	12.44	5.596	4.789	4.08	31.4	29.2
DTB (feet) Depth to Bottom	60.33	(3)	8:58	7.39	12.50	5.411	4.622	3.93	39.2	26.8
DEDICATED PUMP	No	(4)	9:12	7.36	11.80	6.317	5.492	4.72	32.1	31.7
DTW (feet) Depth to Water	3.25	WEATHER CONDITIONS: Clear, 20's, calm								
DTB - DTW	57.08									
Capacity per foot	0.74									
1 Well Volume	42.24									
3 Well Volumes	126.72									
PURGE DATE	11/27/2012									
PURGE TIME	8:30	WATER APPEARANCE: clear								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	9:12									
PUMP DEPTH	55'									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Portable pump set to 55', purged ~130 gallons, collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal of at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

OW-13		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	11:30	8.34	12.53	0.941	0.803	0.62	20.6	-71.8
GAUGE TIME	11:25	(2)	11:46	8.27	12.66	0.943	0.803	0.62	16.6	-67.4
DTB (feet) Depth to Bottom	99.15	(3)	12:02	8.24	12.69	0.945	0.803	0.62	10.6	-58.0
DEDICATED PUMP	Yes	(4)	12:18	8.21	12.61	0.945	0.805	0.62	17.6	-47.3
DTW (feet) Depth to Water	22.90	**WEATHER CONDITIONS** Sunny, calm, 40's.								
DTB - DTW	76.25									
Capacity per foot	0.74									
1 Well Volume	56.43									
3 Well Volumes	169.28									
PURGE DATE	11/27/2012									
PURGE TIME	11:30	**WATER APPEARANCE** clear								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	12:18									
PUMP DEPTH	NM									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Began with purge. Pumped approximately 170 gals. Collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

OW-14		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	12:30	7.30	13.49	1.870	1.558	1.24	13.1	-146.9
GAUGE TIME	12:25	(2)	12:40	7.24	13.44	1.901	1.586	1.27	17.7	-135.7
DTB (feet) Depth to Bottom	46.52	(3)	12:50	7.20	13.46	1.913	1.595	1.27	10.9	-133.7
DEDICATED PUMP	Yes	(4)	13:00	7.23	13.41	1.908	1.593	1.27	10.7	-130.1
DTW (feet) Depth to Water	25.05	**WEATHER CONDITIONS** Sunny, 50's, calm.								
DTB - DTW	21.47									
Capacity per foot	0.74									
1 Well Volume	15.89									
3 Well Volumes	47.66									
PURGE DATE	11/27/2012									
PURGE TIME	12:30	**WATER APPEARANCE** clear								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	13:00									
PUMP DEPTH	NM									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Began with purge. Pumped approximately 50 gals. Collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

OW-29		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	13:05	7.56	12.35	1.333	1.143	0.90	22.3	-106.1
GAUGE TIME	13:05	(2)	13:11	7.63	13.01	1.336	1.126	0.88	24.8	-79.8
DTB (feet) Depth to Bottom	51.08	(3)								
DEDICATED PUMP	Yes	(4)								
DTW (feet) Depth to Water	19.85	**WEATHER CONDITIONS** Sunny, calm, 50's.								
DTB - DTW	31.23									
Capacity per foot	0.74									
1 Well Volume	23.11									
3 Well Volumes	69.33									
PURGE DATE	11/27/2012									
PURGE TIME	13:05	**WATER APPEARANCE** Clear, no odor/sheen.								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	13:11									
PUMP DEPTH	NM									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Began with purge. Began to purge dry ~40 gallons. Collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

OW-30		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	10:00	7.90	12.11	1.372	1.184	0.93	21.0	-46.9
GAUGE TIME	9:55	(2)	10:04	7.62	12.32	1.361	1.167	0.92	14.4	-42.0
DTB (feet) Depth to Bottom	49.90	(3)	10:08	7.46	12.42	1.369	1.172	0.92	12.7	-34.7
DEDICATED PUMP	Yes	(4)	10:12	7.42	12.58	1.367	1.165	0.92	12.9	-32.8
DTW (feet) Depth to Water	24.39	**WEATHER CONDITIONS** Sunny, 20's, calm.								
DTB - DTW	25.51									
Capacity per foot	0.74									
1 Well Volume	18.88									
3 Well Volumes	56.63									
PURGE DATE	11/27/2012									
PURGE TIME	10:00	**WATER APPEARANCE** Clear, no odor/sheen.								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	10:12									
PUMP DEPTH	NM									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Began with purge. Pumped approximately 60 gals. Collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Dedicated pumps

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

OW-50		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	14:15	8.34	13.14	0.833	0.699	0.54	30.3	-85.7
GAUGE TIME	2:10:00 PM	(2)	14:20	8.31	12.91	0.829	0.700	0.54	16.6	-89.0
DTB (feet) Depth to Bottom	64.00	(3)	14:25	8.32	12.89	0.825	0.698	0.54	20.3	-87.8
DEDICATED PUMP	No	(4)	14:30	8.37	12.98	0.832	0.702	0.54	20.6	-89.8
DTW (feet) Depth to Water	17.28	**WEATHER CONDITIONS** Sunny, 50's, calm.								
DTB - DTW	46.72									
Capacity per foot	0.163									
1 Well Volume	7.62									
3 Well Volumes	22.85									
PURGE DATE	11/27/2012									
PURGE TIME	14:15	**WATER APPEARANCE** Cloudy brown, becomes clear with purge, no odor/sheen.								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	14:30									
PUMP DEPTH	60									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Purged ~25 gallons using portable pump. Collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

OW-52		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/27/2012	(1)	13:28	8.13	14.58	1.486	1.206	0.95	44.0	-133.8
GAUGE TIME	13:25	(2)	13:38	8.38	13.16	0.770	0.646	0.49	15.9	-138.6
DTB (feet) Depth to Bottom	77.74	(3)	13:48	8.38	12.87	0.772	0.653	0.50	21.8	-123.4
DEDICATED PUMP	No	(4)	13:58	8.38	13.05	0.775	0.653	0.50	15.8	-94.3
DTW (feet) Depth to Water	16.13	**WEATHER CONDITIONS** Sunny, 50's, calm.								
DTB - DTW	61.61									
Capacity per foot	0.163									
1 Well Volume	10.04									
3 Well Volumes	30.13									
PURGE DATE	11/27/2012									
PURGE TIME	13:28	**WATER APPEARANCE** Clear to cloudy brown/black and back to clear. No odor/sheen.								
SAMPLE DAY	11/27/2012									
SAMPLE TIME	13:58									
PUMP DEPTH	71'									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Portable pump set to 71', purged ~ 30 gallons, collected water samples, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.

Signature: Jacob Berreth, Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012 - RESAMPLE (SVOCS)

OW-50		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	9:58	8.26	12.94	0.829	0.688	0.52	38.6	-26.8
GAUGE TIME	9:50:00 AM	(2)	10:13	8.27	12.91	0.828	0.685	0.52	22.4	-27.5
DTB (feet) Depth to Bottom	64.00	(3)	10:28	8.28	12.88	0.830	0.683	0.52	20.8	-28.1
DEDICATED PUMP	No	(4)	10:43	8.29	12.85	0.831	0.684	0.52	20.5	-28.7
DTW (feet) Depth to Water	17.28	WEATHER CONDITIONS: Sunny, 40's, calm.								
DTB - DTW	46.72									
Capacity per foot	0.163									
1 Well Volume	7.62									
3 Well Volumes	22.85									
PURGE DATE	12/5/2012									
PURGE TIME	9:50	WATER APPEARANCE: Cloudy brown, becomes clear with purge, no odor/sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	10:43									
PUMP DEPTH	60									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/27/2012. The well was resampled for SVOCs only on 12/5/2012. Purged ~23 gallons using portable pump. Collected water sample, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

OW-52		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	10:52	8.26	13.68	0.726	0.711	0.56	29.6	-168.4
GAUGE TIME	10:50	(2)	11:02	8.28	13.67	0.741	0.632	0.53	18.4	-155.3
DTB (feet) Depth to Bottom	77.74	(3)	11:12	8.31	13.51	0.735	0.641	0.53	16.3	-151.2
DEDICATED PUMP	No	(4)	11:22	8.33	13.47	0.731	0.644	0.53	19.2	-144.3
DTW (feet) Depth to Water	16.26	WEATHER CONDITIONS: Sunny, 40's, calm.								
DTB - DTW	61.48									
Capacity per foot	0.163									
1 Well Volume	10.02									
3 Well Volumes	30.06									
PURGE DATE	12/5/2012									
PURGE TIME	10:50	WATER APPEARANCE: Clear, no odor or sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	11:22									
PUMP DEPTH	70'									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/27/2012. The well was resampled for SVOCs only on 12/5/2012. Portable pump set to 70', purged ~ 30 gallons, collected water sample, labeled and placed on ice in cooler. Purge water drummed for disposal at the bundle pad upstream of the NAPIS .

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Submersible pump, Grundfos Redi-flo 2, 2" and an adjustable rate controller.

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

GWM-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	7:18	7.23	13.13	4.586	3.858	3.24	33.2	-106.1
GAUGE TIME	7:10	(2)	7:22	6.95	12.82	4.687	3.973	3.35	25.7	-97.5
DTB (feet) Depth to Bottom	26.20	(3)	7:25	6.85	12.76	4.710	3.949	3.33	22.8	-96.7
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	14.50	**WEATHER CONDITIONS** Clear, 20's, calm.								
DTB - DTW	11.70									
Capacity per foot	0.163									
1 Well Volume	1.91									
3 Well Volumes	5.72									
PURGE DATE	11/28/2012									
PURGE TIME	7:18	**WATER APPEARANCE** Light yellow, cloudy, no odor/sheen.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	7:25									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	25.48									

SAMPLE LOG

Purged ~6 gallons w/ bailer. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:
YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

GWM-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	7:10	(2)								
DTB (feet) Depth to Bottom	18.81	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	13.83	**WEATHER CONDITIONS** Clear, 20's, calm.								
DTB - DTW	4.98									
Capacity per foot	0.163									
1 Well Volume	0.812									
3 Well Volumes	2.44									
PURGE DATE	11/28/2012									
PURGE TIME	7:20	**WATER APPEARANCE** light yellow, no odor or sheen.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	7:23									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	18.52									

SAMPLE LOG

Bailed ~1 gallon, sampled well. 18.52 DTW after purge dry. Purge water disposed of at bundle pad upstream of the NAPIS.

GWM-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	6:30	(2)								
DTB (feet) Depth to Bottom	17.80	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	13.60	**WEATHER CONDITIONS** Clear, 20's, clam.								
DTB - DTW	4.80									
Capacity per foot	0.163									
1 Well Volume	0.780									
3 Well Volumes	2.35									
PURGE DATE	11/28/2012									
PURGE TIME	6:40	**WATER APPEARANCE** Light yellow, no sheen, slight odor.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	6:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	17.1									

SAMPLE LOG

Bailed ~1 gallon, sampled well. 17.1 DTW after well was bailed dry. Purge water disposed of at bundle pad upstream of the NAPIS.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

NAPIS-1

GAUGE DATE	11/28/2012
GAUGE TIME	10:15
DTB (feet) Depth to Bottom	13.53
DEDICATED PUMP	No
DTW (feet) Depth to Water	8.04
DTB - DTW	5.49
Capacity per foot	0.163
1 Well Volume	0.89
3 Well Volumes	2.68
PURGE DATE	11/28/2012
PURGE TIME	10:18
SAMPLE DAY	11/28/2012
SAMPLE TIME	10:27
PUMP DEPTH	NA
DTW (feet) at end of Purging	NM

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	10:18	8.01	16.62	1.457	1.127	0.88	77.1	-30.3
(2)	10:21	7.70	16.79	1.446	1.115	0.87	41.0	-15.7
(3)	10:24	7.52	16.91	1.488	1.145	0.90	32.2	-17.7
(4)	10:27	7.42	16.80	1.533	1.181	0.93	29.3	-19.3

WEATHER CONDITIONS

Sunny, 40's, calm.

WATER APPEARANCE

Clear, no odor/sheen.

SAMPLE LOG

Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS. No water present in flush mount sump.

NAPIS-2

GAUGE DATE	11/28/2012
GAUGE TIME	9:35
DTB (feet) Depth to Bottom	13.61
DEDICATED PUMP	No
DTW (feet) Depth to Water	9.40
DTB - DTW	4.21
Capacity per foot	0.163
1 Well Volume	0.69
3 Well Volumes	2.06
PURGE DATE	11/28/2012
PURGE TIME	9:37
SAMPLE DAY	11/28/2012
SAMPLE TIME	9:43
PUMP DEPTH	NA
DTW (feet) at end of Purging	NM

TEST PARAMATERS

	Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
(1)	9:37	7.20	23.76	2.183	1.454	1.15	20.4	-126.4
(2)	9:40	7.17	24.26	2.199	1.451	1.14	21.5	-127.0
(3)	9:43	7.16	24.26	2.212	1.460	1.15	21.2	-125.4
(4)								

WEATHER CONDITIONS

Sunny, 30's, calm.

WATER APPEARANCE

Clear, odor, no sheen.

SAMPLE LOG

Began with purge. Bailed approximately 2.25 gals. Collected water samples, labeled and placed on ice in cooler. Well dry after sampling. Purge water disposed of at bundle pad upstream of the NAPIS. No water in flush mount sump.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012 - RESAMPLE (SVOCS)

NAPIS-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	9:36	7.86	16.51	1.464	1.144	0.91	46.1	-21.4
GAUGE TIME	9:42	(2)	9:39	7.71	16.47	1.468	1.468	0.93	51.4	-18.6
DTB (feet) Depth to Bottom	13.53	(3)	9:40	7.66	16.44	1.480	1.480	0.94	48.3	-15.4
DEDICATED PUMP	No	(4)	9:42	7.64	16.39	1.485	1.485	0.93	46.1	-14.3
DTW (feet) Depth to Water	8.41	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	5.12									
Capacity per foot	0.163									
1 Well Volume	0.83									
3 Well Volumes	2.50									
PURGE DATE	12/5/2012									
PURGE TIME	9:36	**WATER APPEARANCE** Clear, no odor/sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	9:42									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012. Began with purge. Bailed approximately 3 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS. No water present in flush mount sump.

NAPIS-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	9:19	7.08	22.44	2.166	1.468	1.12	23.6	-123.8
GAUGE TIME	9:19	(2)	9:21	7.11	22.38	2.154	1.423	1.08	23.1	-124.9
DTB (feet) Depth to Bottom	13.61	(3)	9:23	7.13	22.32	2.148	1.411	1.05	22.8	-126.2
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	9.47	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	4.14									
Capacity per foot	0.163									
1 Well Volume	0.67									
3 Well Volumes	2.02									
PURGE DATE	12/5/2012									
PURGE TIME	9:19	**WATER APPEARANCE** Clear, odor, no sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	9:23									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012. Began with purge. Bailed approximately 1.75 gallons. Well was purging dry. Collected water samples, labeled and placed on ice in cooler. Well dry after sampling. Purge water disposed of at bundle pad upstream of the NAPIS. No water in

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

3rd QTR 2012

NAPIS-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	10/2/2012	(1)	NA	NA	NA	NA	NA	NA	NA	NA
GAUGE TIME	8:50	(2)	NA	NA	NA	NA	NA	NA	NA	NA
DTB (feet) Depth to Bottom	30.42	(3)	NA	NA	NA	NA	NA	NA	NA	NA
DEDICATED PUMP	N	(4)	NA	NA	NA	NA	NA	NA	NA	NA
DTW (feet) Depth to Water	8.56	Test parameters not taken								
DTB - DTW	21.86									
Capacity per foot	0.16	**WEATHER CONDITIONS**								
1 Well Volume	3.498	Clear day, 0-5 mph winds, 65-70 Deg F.								
3 Well Volumes	10.49									
PURGE DATE	10/2/2012									
PURGE TIME	8:55	**WATER APPEARANCE**								
SAMPLE DAY	10/2/2012	Clear to slightly cloudy - no odor detected. Turned brown towards end of purging								
SAMPLE TIME	9:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

During third quarter sampling in August, well was purged and allowed to recharge overnight to sample. Well had slow recharge rate and after 24 hours, there was not enough water to collect sample. NMED was notified and instructed to take samples during week of October 1, 2012. Opened cover - water present inside well casing. Removed water before removing plug to gauge. Bailed approximately 5 gallons before samples were collected. Samples labeled and placed in cooler on ice. Purged water was placed in 5 gallon buckets and disposed of upstream of the NAPIS.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Disposable bailer, latex gloves
5 gallon buckets to catch purge water

Signature: Cheryl Johnson / Environmental Specialist / Western Refining

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

NAPIS-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	8:37	8.15	22.82	4.284	2.961	2.39	56.8	-44.6
GAUGE TIME	8:35	(2)	8:42	7.96	20.12	4.089	2.968	2.42	36.4	-43.4
DTB (feet) Depth to Bottom	30.42	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	8.30	**WEATHER CONDITIONS** Sunny, 30's, calm.								
DTB - DTW	22.12									
Capacity per foot	0.163									
1 Well Volume	3.61									
3 Well Volumes	10.82									
PURGE DATE	11/28/2012									
PURGE TIME	8:30	**WATER APPEARANCE** Clear, no odor or sheen.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	8:42									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	Dry									

SAMPLE LOG

Bailed ~ 7 gallons, well not recharging, sampled well. Purge water disposed of at bundle pad upstream of the NAPIS. Standing water in flush mount sump below top of PVC.

KA-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	9:05	7.53	24.43	2.490	1.639	1.30	58.0	-2.0
GAUGE TIME	8:50	(2)	9:10	7.43	24.39	3.318	2.184	1.76	52.5	-8.9
DTB (feet) Depth to Bottom	23.20	(3)	9:15	7.60	23.60	3.808	2.581	2.10	25.4	-22.3
DEDICATED PUMP	No	(4)	9:20	7.66	23.10	4.002	2.689	2.20	26.7	-18.6
DTW (feet) Depth to Water	9.25	**WEATHER CONDITIONS** Sunny, 30's, calm.								
DTB - DTW	13.95									
Capacity per foot	0.163									
1 Well Volume	2.27									
3 Well Volumes	6.82									
PURGE DATE	11/28/2012									
PURGE TIME	9:05	**WATER APPEARANCE** clear to cloudy brown, no odor/sheen.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	9:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Began with purge. Bailed approximately 7.5 gals. Collected water samples, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS. Standing water in flush mount sump below top of casing.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY
4th QTR 2012 - RESAMPLE (SVOCS)

NAPIS-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	8:38	7.99	21.62	4.011	2.916	2.56	59.2	-44.3
GAUGE TIME	8:38	(2)	8:43	7.88	21.48	4.068	2.885	2.49	55.4	-42.1
DTB (feet) Depth to Bottom	30.42	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	8.42	**WEATHER CONDITIONS** Sunny, 30's, calm.								
DTB - DTW	22.00									
Capacity per foot	0.163									
1 Well Volume	3.59									
3 Well Volumes	10.76									
PURGE DATE	12/5/2012									
PURGE TIME	8:38	**WATER APPEARANCE** Clear, no odor or sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	8:43									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012. Bailed ~ 7 gallons, well not recharging, sampled well. Purge water disposed of at bundle pad upstream of the NAPIS. Standing water in flush mount sump below top of PVC.

KA-3		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	8:46	7.68	23.20	2.500	2.011	1.36	26.2	-16.6
GAUGE TIME	8:46	(2)	8:50	7.66	23.43	2.486	2.028	1.46	24.8	-16.9
DTB (feet) Depth to Bottom	23.20	(3)	8:54	7.67	23.48	2.477	2.107	1.56	23.3	-17.2
DEDICATED PUMP	No	(4)	8:58	7.68	23.49	2.462	2.149	1.68	22.4	-17.6
DTW (feet) Depth to Water	9.38	**WEATHER CONDITIONS** Sunny, 30's, calm.								
DTB - DTW	13.82									
Capacity per foot	0.163									
1 Well Volume	2.25									
3 Well Volumes	6.76									
PURGE DATE	12/5/2012									
PURGE TIME	8:46	**WATER APPEARANCE** Clear, no odor or sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	8:58									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012. Began with purge. Bailed approximately 7 gals. Collected water sample, labeled and placed on ice in cooler. Purge water disposed of at bundle pad upstream of the NAPIS. Standing water in flush mount sump below top of casing.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

East LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	11:00	(2)								
DTB (feet) Depth to Bottom	NM	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	1.31	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** yellow								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	11:05									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Collected grab sample with bailer, labeled and placed on ice in cooler.

West LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	11:10	(2)								
DTB (feet) Depth to Bottom	NM	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	0.32	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** clear								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	11:15									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Collected grab sample with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

Bailer

Signature: Tom Fleener/Jacob Berreth - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

Oil Sump LDU		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	10:40	(2)								
DTB (feet) Depth to Bottom	NM	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	2.50	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** yellow with black particulates								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	10:47									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NM									

SAMPLE LOG

Grab sample collected with bailer, labeled and placed on ice in cooler.

INSTRUMENTS USED:

YSI 556 MPS instrument used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
Bailer

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

AL-2 to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	13:40	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS**								
DTB - DTW	NA	11/28/2012:Sunny, 50's, 5-10 mph wind								
Capacity per foot	NA	12/5/2012: Sunny, 40's, calm								
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE**								
SAMPLE DAY	11/28/2012	11/28/2012: Cloudy green, odor, sheen.								
SAMPLE TIME	14:00	12/5/2012: Cloudy green, odor, sheen.								
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab samples with plastic dipper, labeled and placed on ice in cooler. The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012 (10:11 AM).

Infl to AL-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)								
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS**								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE**								
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Location not sampled. No flow due to new system. Location revisited on 12/5/2012, still no flow.

INSTRUMENTS USED:

Plastic dipper.

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

Infl to AL-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	13:00	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** 11/28/2012: Sunny, 50's, calm. 12/5/2012: Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** 11/28/2012: light brown 12/5/2012: light brown								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	13:20									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample using plastic dipper, labeled and placed on ice in cooler. The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012 (9:55 AM).

Infl to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)	Not Recorded							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** 11/28/2012: Sunny, 50's, 5-10 mph wind. 12/5/2012: Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** 11/28/2012: Cloudy green, odor, sheen. 12/5/2012: Cloudy green, odor, sheen.								
SAMPLE DAY	11/28/2012									
SAMPLE TIME	13:50									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample using plastic dipper, labeled and placed on ice in cooler. The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012 (10:11 AM).

INSTRUMENTS USED:

Plastic dipper

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012 - RESAMPLE (SVOCS)

Infl to AL-2		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	Not Recorded							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** 11/28/2012: Sunny, 50's, calm. 12/5/2012: Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** 11/28/2012: light brown 12/5/2012: light brown								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	9:55									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample using plastic dipper, labeled and placed on ice in cooler. The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012 (9:55 AM).

Infl to EP-1		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	Not Recorded							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** 11/28/2012: Sunny, 50's, 5-10 mph wind. 12/5/2012: Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** 11/28/2012: Cloudy green, odor, sheen. 12/5/2012: Cloudy green, odor, sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	10:11									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Collected grab sample using plastic dipper, labeled and placed on ice in cooler. The SVOC container was not filled during the original sampling event on 11/28/2012. The well was resampled for SVOCs only on 12/5/2012 (10:11 AM).

INSTRUMENTS USED:

Plastic dipper

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012

Pilot Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	12/5/2012	(1)	Not Recorded							
GAUGE TIME	11:41	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Cloudy gray, odor, no sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	11:41									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Location was not sampled during the original sampling event on 11/28/2012. There was no flow from Pilot Effluent. Water was being diverted directly to Pond 9. During the 12/5/2012 SVOC resampling event, there was flow from the Pilot Effluent and a sample was collected. Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

NAPIS Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	11/28/2012	(1)								
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS**								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE**								
SAMPLE DAY	NA									
SAMPLE TIME	NA									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Location not sampled. No flow due to new system. Location revisited on 12/5/2012, still no flow.

INSTRUMENTS USED:

None.

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

4th QTR 2012 - RESAMPLE (SVOCS)

Pilot Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)	Not Recorded							
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS** Sunny, 40's, calm.								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE** Cloudy gray, odor, no sheen.								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	11:41									
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Location was not sampled during the original sampling event on 11/28/2012. There was no flow from Pilot Effluent. Water was being diverted directly to Pond 9. During the 12/5/2012 SVOC resampling event, there was flow from the Pilot Effluent and a sample was collected. Collected grab samples with plastic dipper, labeled and placed on ice in cooler.

NAPIS Eff.		TEST PARAMATERS								
			Time (hrs)	pH	Temperature Deg C	Conductivity (uS), (mS)	TDS (g/L)	Salinity (ppt)	Dissolved Oxygen (%)	ORP (mV)
GAUGE DATE	NA	(1)								
GAUGE TIME	NA	(2)								
DTB (feet) Depth to Bottom	NA	(3)								
DEDICATED PUMP	No	(4)								
DTW (feet) Depth to Water	NA	**WEATHER CONDITIONS**								
DTB - DTW	NA									
Capacity per foot	NA									
1 Well Volume	NA									
3 Well Volumes	NA									
PURGE DATE	NA									
PURGE TIME	NA	**WATER APPEARANCE**								
SAMPLE DAY	12/5/2012									
SAMPLE TIME	NA	No Flow								
PUMP DEPTH	NA									
DTW (feet) at end of Purging	NA									

SAMPLE LOG

Location not sampled. No flow due to new system. Location revisited on 12/5/2012, still no flow.

INSTRUMENTS USED:

None.

Signature: Jacob Berreth/Conrad Morgan - Trihydro Corp.

WESTERN REFINING - GALLUP REFINERY

2012 QUARTERLY INSPECTION

RW-1 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	10/8/2012	Product Thickness (ft)	0.900	N/A
GAUGE TIME	9:40	Volume of Product Purged (Gallons)	0.500	
DTB (feet) Depth to Bottom	43.04	Volume of Water Purged (Gallons)	35	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	29.28	PURGE TIME		
DTW (feet) Depth to Water	30.18	SAMPLE DAY		
DTB - DTW	12.86	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
10/8/2012	9:40	10/8/2012	10:05	
10/8/2012	11:00	10/8/2012	11:30	

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

RW-2 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	10/8/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	10:40	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.80	Volume of Water Purged (Gallons)	N/A	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		N/A
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	24.87	SAMPLE DAY		
DTB - DTW	14.93	SAMPLE TIME		

WELL PURGING				Notes
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
N/A				

ADDITIONAL NOTES:

Purging for product recover only - no samples collected.

INSTRUMENTS USED:

Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
Dedicated portable pump used for RW-1

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

WESTERN REFINING - GALLUP REFINERY
2012 QUARTERLY INSPECTION

RW-5 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	10/8/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	10:10	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	39.59	Volume of Water Purged (Gallons)	15	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.58	SAMPLE DAY		
DTB - DTW	10.01	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
10/8/2012	10:25	10/8/2012	10:35	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 15 gallons was bailed from this well.

RW-6 (Recovery Well)				WEATHER CONDITIONS
GAUGE DATE	10/8/2012	Product Thickness (ft)	0.000	N/A
GAUGE TIME	10:15	Volume of Product Purged (Gallons)	N/A	
DTB (feet) Depth to Bottom	40.90	Volume of Water Purged (Gallons)	15	**WATER APPEARANCE**
DEDICATED PUMP	N	PURGE DATE		Water clear in color - has slight odor and has a slight sheen to water purged. No measurable layer.
DTP (feet) Depth to Product	0.00	PURGE TIME		
DTW (feet) Depth to Water	29.62	SAMPLE DAY		
DTB - DTW	11.28	SAMPLE TIME		
WELL PURGING				**Notes**
START DATE	START TIME	END DATE	END TIME	Recovery wells (1, 2, 5, 6) were included as part of the annual ground water sampling for the first time in 2011. These wells were only monitored for product level thickness and product recovery on a quarterly basis. Sampling of wells was not a requirement.
10/8/2012	10:15	10/8/2012	10:25	

ADDITIONAL NOTES:

Although no measurable product layer was observed - 15 gallons was bailed from this well.

INSTRUMENTS USED:
YSI 556 MPS Instrument with flow cell. Used to collect water quality parameters.
Water Level - Heron Instrument 100 feet DipperT electric water depth tape.
5 gallon buckets to catch purge water.
3 foot disposable bailer.

SIGNATURE: /s/ *Cheryl Johnson* / Environmental Specialist

APPENDIX D

Summary of Waste Water Monthly Flow Rate

2012 WASTE WATER AVERAGE MONTHLY FLOW RATE

MONTH	North Benzene	South Benzene	NAPIS INLET	TOTAL (GPM)
	84FI109.PV	84FI108.PV	84FT043.PV	
JANUARY	102.53	93.72	ND	**196.25**
FEBRUARY	84.08	102.57	ND	**204.65**
MARCH	93.62	85.64	ND	**179.26**
APRIL	93.41	77.15	ND	**170.56**
MAY	64.2[1]	67.38[1]	197.04	**197.04**
JUNE	61.42[1]	64.48[1]	209.84	**209.84**
JULY	25.6[2]	26.6[2]	174.82	**174.82**
AUGUST	0[3]	2.8[3]	168.27	**168.27**
SEPTEMBER	60.7[4]	91[4]	161.52	**161.52**
OCTOBER	20.2[5]	41.3[5]	175.33	**175.33**
NOVEMBER	11.1[6]	22.7[6]	196.24	**196.24**
DECEMBER	0	0	206.84	**206.84**

NOTES:

1. Startup of new Waste Water Treatment Plant on 5/8/12. Total flow taken at inlet to NAPIS, as Benzene Strippers 1 and 2 are used intermittently at this time.
2. N & S benzene strippers are used only on an as needed basis due to start up of new WWTP.
3. N stripper not in service; S benzene stripper in service only on 8/6/12 for short duration.
4. N & S strippers used for a total of 312 hours for September.
5. Used for 2 days in October.
6. N & S benzene strippers taken off-line on 11/10/12 permanently.

APPENDIX E

NMED "Approval with Modifications Requirement to Resurvey Ground water Monitoring Wells and Recovery Wells", 9/24/12

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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

SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

DAVE MARTIN
Secretary

BUTCH TONGATE
Deputy Secretary

JAMES H. DAVIS, Ph.D.
Director
Resource Protection Division

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

September 24, 2012

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

RE: APPROVAL WITH MODIFICATIONS
REQUIREMENT TO RESURVEY GROUNDWATER MONITORING WELLS AND RECOVERY WELLS
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-11-003

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has received Western Refining Company, Southwest Inc., Gallup Refinery's (Permittee) submittal titled, *Requirement to Resurvey Ground Water Monitoring Wells and Recovery Wells* (Report), dated June 12, 2012. NMED has reviewed the Report and hereby issues this Approval with the following modifications.

Comment 1

In Comment 3 of NMED's May 18, 2012 Third Notice of Disapproval (NOD), the Permittee was required to verify that all horizontal data from the June 2011 survey was correct and represented the actual locations of the monitoring wells surveyed. The Permittee cross referenced survey data from Sterling & Mataya Engineers collected on May 13, 1991 (May 1991) and data acquired

by Lynn Engineering and Surveying collected on June 21, 2007 (June 2007) to verify the monitoring well locations. Survey data from the May 1991 survey was converted from NAD27 to NAD83; however, the Permittee did not provide conversions for all of the May 1991 survey data. Provide revised coordinate verification worksheets that include all monitoring wells from the May 1991 survey. In addition, there is a typographical error in the reported elevation for the OW-11 monitoring well conversion. The Permittee reports an elevation of 6923.59 feet and the May 1991 reports it as 6923.89 feet. Correct the typographical errors in revised coordinate verification worksheets.

Comment 2

In the *2011 Corrected Well Elevation Summary Table – Revision 3 (June 12, 2012)*, the Permittee did not report a stick-up length measurement for BW-1B in the "2011 Survey Stick-up Length (feet)" column. In addition, the Permittee did not define the asterisk from the OW-1 "2011 Measuring Point Description" column. Define the symbol in the "Notes" section or remove it from the revised data table. The Permittee is reminded that all data tables must be reviewed and corrected for errors prior to submission. Correct the typographical errors and provide a revised data table.

Comment 3

Comments 8 and 11 of NMED's September 24, 2012 Disapproval letter for the *Facility-Wide Ground Water Monitoring Work Plan - 2011 Updates* requires the Permittee to resubmit the tables in Appendix C with the approved survey data in the revised Work Plan. The Permittee must review these tables and ensure the correct information from this Report is incorporated into the final version of the tables in the revised Work Plan.

The Permittee must submit the revised data tables, replacement pages, and response letter with the required information addressing all the comments from this Approval with modifications to NMED by **October 9, 2012**.

If you have questions regarding this letter please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

Sincerely,

John E. Kieling
Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
K. Van Horn, NMED HWB
L. Tsinnajinnie, NMED HWB
C. Chavez, OCD
T. Larson, Western Refining Company, Gallup Refinery
C. Johnson, Western Refining Company, Gallup Refinery
A. Haines, Western Refining Company, El Paso, Texas

File: Reading File and WRG 2012 File
HWB-WRG-11-003

APPENDIX F

OAPIS-1 – Boring Logs, Analytical Data

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

Phone: 505-863-5440 • Fax: 505-863-1919 • des@cnetco.com
307 South 4th Street • Gallup, NM 87301
PO BOX 876 • Gallup, NM 87301

April 6, 2013

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

Re: Survey Gallup Refinery Monitoring Well OAPIS-1

Dear Mr. Riege:

DePauli Engineering & Surveying, LLC completed the survey of the monitoring wells at Western Refining-Gallup Refinery on April 2, 2013. A total of 1 well was surveyed. As requested, the wells were surveyed for the following parameter: ground level elevation, ground level elevation inside steel sleeve, center top steel lid elevation, well casing rim elevation and corresponding measuring point description associated with each elevation. Survey conducted enlisted NM Surveyor in Training and a Technician from DePauli Engineering Surveying and one Gallup Refinery representative to assist with the location of the wells.

The instruments used to complete the survey consisted of a Leica VIVA GS10 GPS (Global Positing System) Base and GS15 Rover GPS. The method used to survey the wells was Real-time Kinematic GPS Surveying (RTK). RTK Surveying requires that two or more receivers be operated simultaneously. The aspect of the procedure is a radio used to transmit a signal with corrections and observations to the roving receiver. The base (reference) station is a known position that produces the correction and the signal received by the Rover thence giving the Rover observation corrected valves. The horizontal and vertical positions are determined by relative position to local bench marks.

The horizontal and vertical positions of the top of the PVC casing (unless otherwise noted) and the vertical positions for the lid, ground elevation inside the steel casing, and the surrounding ground elevation is shown on the attached sheet labeled "Western Refining Monitoring Well April, 2013." The horizontal position is NAD 83 datum and the vertical positions are NGVD 1929. Elevation were taken using the concrete pad surrounding each well and locations noted on the report. Ground elevation was taken using the concrete pad surrounding each well and locations shown on the report.

The requested survey was complete on April 2, 2013, in accordance with sections 500.1 through 500.12 of the Regulations and Rules of the Board of Registration for Professional Engineers and Surveyors Minimum Standards for Surveying in New Mexico; which horizontal positions were measured to the nearest 0.1-ft and vertical elevations were measured to an accuracy of 0.01-ft.

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

Sincerely,

Marc DePauli

Marc DePauli, PE/PS

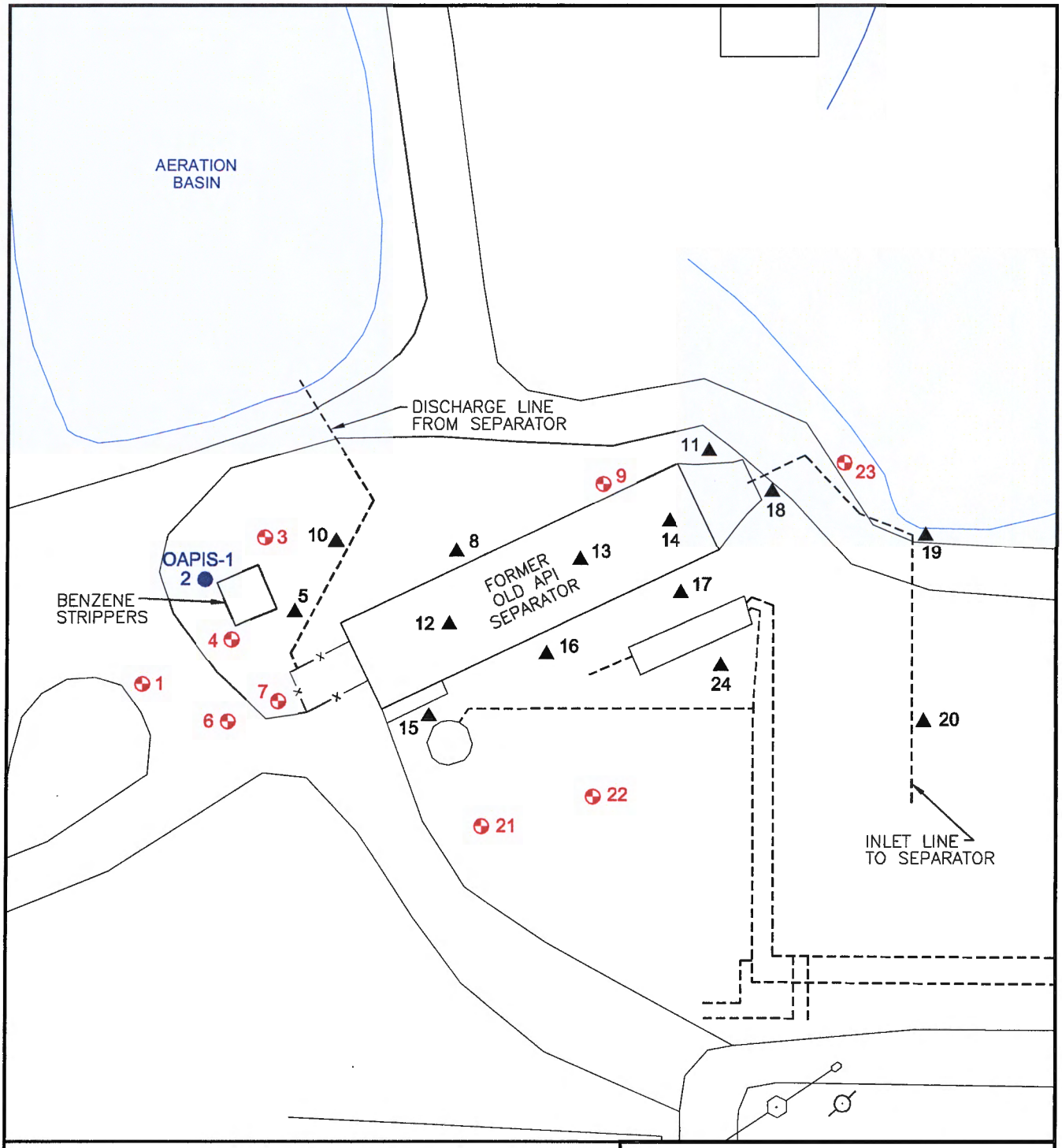
Western Refining Monitoring Well April, 2013

Well #	Northing	Easting	Elevation	Description
OAPIS-1	1,634,463.25	2,545,564.26	6916.73	North West edge PVC casing
			6917.14	Center steel lid
			6916.50	North side ground elev. inside steel sleeve
			6914.37	North East & South West corner of concrete pad

Marc DePauli PS13606

4-6-2013
Date

C:\Survey\Western Refinery Monitoring Wells\Western Refining Monitoring Well 4_2_13\Western Refining Monitoring Well 4_2_13



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

LEGEND

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

N

0 40

SCALE IN FEET

NEW MEXICO

QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:11/15/12	FILE:WestRef-A149

SWMU No. 14 SAMPLE LOCATIONS
GALLUP REFINERY

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

WELL CONSTRUCTION

Well No.: OAPIS-1 (SWMU 14-2)
Start Date: 7/17/2012 14:30
Finish Date: 7/17/2012 17:30

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

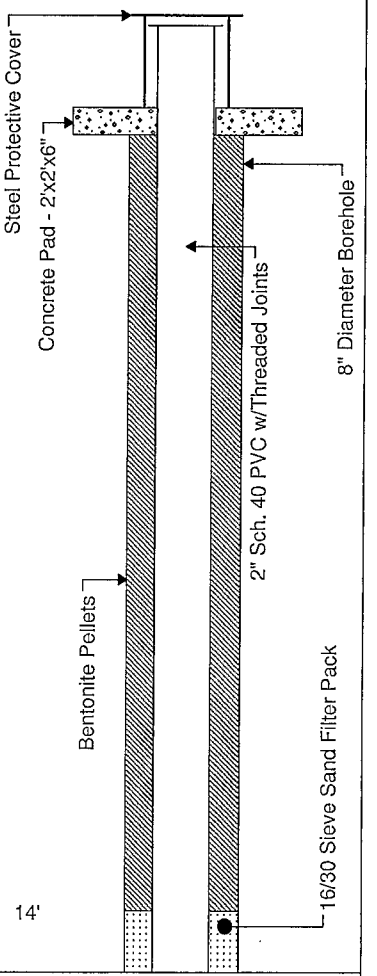
Total Depth: 26' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.781'

Comments: N35º29.442' W108º25.781'; Samples collected 7/19/2012 (SWMU 14-2 GW 1000, FB071712 1800, EB071712 1815)

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/Container/No	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description
0	0-0.5'	1610	G/2E/2V/2J		2.9 83ºF		100	**Fill (Clay/Gravel)** Brown, dry to damp, no odor
2	1.5-2'	1624	G/2E/2V/2J		280 83ºF		100	**Clay (CH)** Moderate plasticity, firm, damp, black and brown, odor
4					56.8 83ºF		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown grading to black at 4' bgl, faint odor
6					69.4 83ºF		90	**Silty Clay (CL)** Similar to above, brown and black, trace sand, odor
8					87.5 83ºF		90	**Silty Clay (CL)** Similar to above, odor
10	8-10' &Dup	1645	G/4E/4V/4J		330 83ºF		90	**Silty Clay (CL)** Low plasticity, very soft, damp, dark brown and black, odor
12					294 83ºF		80	**Silty Clay (CL)** Similar to above
14					14.6 83ºF		70	**Silty Clay (CL)** Similar to above, faint odor
							70	**Clay (CH)** Moderate plasticity, stiff, damp, reddish brown, no odor

Ground Surface

Completion Results



RPS
1250 S. Capital of Texas Hwy., Bldg. 3 Suite 200
Austin, Texas 78746

512/347-7588
512/347-8243 fax

WELL CONSTRUCTION

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

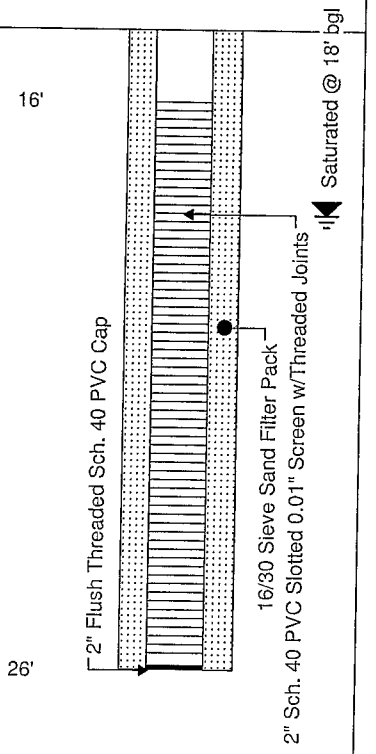
Total Depth: 26' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' W 108º25.781'

Well No.: OAPIS-1 (SWMU 14-2)
Start Date: 7/17/2012 14:30
Finish Date: 7/17/2012 17:30

Comments: N35º29.442' W108º25.781'; Samples collected 7/19/2012 (SWMU 14-2 GW 1000, FB071712 1800, EB071712 1815)

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/Container/No	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description
16					5.7 86ºF		90	**Clay (CH)** Similar to above, no odor
	16-18'	1710	G/2E/2V/2J	18'	10.7 86ºF		80	**Clay (CH)** Similar to above, no odor
18					--		90	**Clay (CH)** Similar to above, water in split spoon
20					--			
					17.9 83ºF		80	**Clay (CH)** Similar to above
22								
					12.8 83ºF		90	**Clay (CH)** Similar to above, gray and reddish brown, no odor
24	24-25'	1730	G/2E/2V/2J		13.2 83ºF		70	**Clay (CH)** Similar to above
							-	**Clay (CH)** Similar to above
26								Total Depth = 26' BGL
28								
30								
32								

Completion Results



RPS
1250 S. Capital of Texas Hwy., Bldg. 3 Suite 200
Austin, Texas 78746

512/347-7588
512/347-8243 fax

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

August 21, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1207940

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 34 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207940**
Date Reported: **8/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	10		mg/Kg	1	7/23/2012 10:46:54 AM
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	7/23/2012 10:46:54 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 10:46:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/27/2012 2:33:57 AM
Surr: BFB	103	84-116		%REC	2	7/27/2012 2:33:57 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.32	0.033		mg/Kg	1	8/2/2012 9:11:33 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:33:40 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:32:50 PM
Barium	430	5.0		mg/Kg	50	8/5/2012 12:52:36 PM
Beryllium	0.89	0.75		mg/Kg	5	8/4/2012 3:32:50 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:33:40 PM
Chromium	23	1.5		mg/Kg	5	8/1/2012 2:33:40 PM
Cobalt	5.4	1.5		mg/Kg	5	8/4/2012 3:32:50 PM
Iron	15000	500		mg/Kg	500	8/5/2012 12:54:47 PM
Lead	7.7	1.2		mg/Kg	5	8/4/2012 3:32:50 PM
Manganese	510	5.0		mg/Kg	50	8/5/2012 12:52:36 PM
Nickel	9.3	2.5		mg/Kg	5	8/4/2012 3:32:50 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:32:50 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:33:40 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 2:33:40 PM
Zinc	49	12		mg/Kg	5	8/4/2012 3:32:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 4:18:42 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Surr: 2,4,6-Tribromophenol	104	20.1-121		%REC	1	7/27/2012 4:18:42 PM
Surr: 2-Fluorobiphenyl	93.2	19-133		%REC	1	7/27/2012 4:18:42 PM
Surr: 2-Fluorophenol	92.3	20.2-108		%REC	1	7/27/2012 4:18:42 PM
Surr: 4-Terphenyl-d14	97.6	18.9-115		%REC	1	7/27/2012 4:18:42 PM
Surr: Nitrobenzene-d5	91.6	20.8-123		%REC	1	7/27/2012 4:18:42 PM
Surr: Phenol-d5	83.0	19.8-115		%REC	1	7/27/2012 4:18:42 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Toluene	2.92	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Ethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Xylenes, Total	ND	2.94		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Methyl tert-butyl ether (MTBE)	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,4-Trimethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3,5-Trimethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichloroethane (EDC)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dibromoethane (EDB)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Naphthalene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1-Methylnaphthalene	ND	3.93		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Methylnaphthalene	ND	3.93		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Acetone	ND	29.4		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromodichloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromoform	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Butanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Carbon tetrachloride	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chloroform	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Chlorotoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Carbon disulfide	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Chlorotoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
cis-1,2-DCE	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
cis-1,3-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dibromo-3-chloropropane	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dibromochloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dibromomethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,4-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dichlorodifluoromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloroethene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichloropropane	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3-Dichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2,2-Dichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Hexachlorobutadiene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Isopropylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Isopropyltoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Methylene chloride	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
n-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Hexanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
n-Propylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
sec-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Styrene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Methyl-2-pentanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
tert-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,1,2-Tetrachloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,2,2-Tetrachloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Tetrachloroethene (PCE)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
trans-1,2-DCE	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
trans-1,3-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,3-Trichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,4-Trichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,1-Trichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,2-Trichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Trichloroethene (TCE)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Trichlorofluoromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,3-Trichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: Toluene-d8	97.9	70-130		%REC	1	7/26/2012 7:57:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	240	10		mg/Kg	1	7/23/2012 11:12:14 AM
Motor Oil Range Organics (MRO)	150	51		mg/Kg	1	7/23/2012 11:12:14 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 11:12:14 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/27/2012 3:02:41 AM
Surr: BFB	101	84-116		%REC	2	7/27/2012 3:02:41 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.21	0.16		mg/Kg	5	8/2/2012 9:29:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:38:44 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:35:11 PM
Barium	430	5.0		mg/Kg	50	8/5/2012 12:57:26 PM
Beryllium	0.83	0.75		mg/Kg	5	8/4/2012 3:35:11 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:38:44 PM
Chromium	23	1.5		mg/Kg	5	8/1/2012 2:38:44 PM
Cobalt	5.1	1.5		mg/Kg	5	8/4/2012 3:35:11 PM
Iron	14000	500		mg/Kg	500	8/5/2012 12:59:38 PM
Lead	6.8	1.2		mg/Kg	5	8/4/2012 3:35:11 PM
Manganese	530	5.0		mg/Kg	50	8/5/2012 12:57:26 PM
Nickel	8.8	2.5		mg/Kg	5	8/4/2012 3:35:11 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:35:11 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:38:44 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 2:38:44 PM
Zinc	43	12		mg/Kg	5	8/4/2012 3:35:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Aniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Azobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Carbazole	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Chrysene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 4:48:12 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Fluorene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Naphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
Phenanthrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Phenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Surr: 2,4,6-Tribromophenol	105	20.1-121		%REC	1	7/27/2012 4:48:12 PM
Surr: 2-Fluorobiphenyl	96.1	19-133		%REC	1	7/27/2012 4:48:12 PM
Surr: 2-Fluorophenol	89.6	20.2-108		%REC	1	7/27/2012 4:48:12 PM
Surr: 4-Terphenyl-d14	100	18.9-115		%REC	1	7/27/2012 4:48:12 PM
Surr: Nitrobenzene-d5	93.1	20.8-123		%REC	1	7/27/2012 4:48:12 PM
Surr: Phenol-d5	85.9	19.8-115		%REC	1	7/27/2012 4:48:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Toluene	0.892	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Ethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Xylenes, Total	ND	2.64		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,4-Trimethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3,5-Trimethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichloroethane (EDC)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dibromoethane (EDB)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Naphthalene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Acetone	ND	26.4		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromodichloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromoform	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Butanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Carbon tetrachloride	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chloroform	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Chlorotoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Carbon disulfide	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Chlorotoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
cis-1,2-DCE	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
cis-1,3-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dibromo-3-chloropropane	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dibromochloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dibromomethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,4-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dichlorodifluoromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloroethene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichloropropane	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3-Dichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2,2-Dichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Hexachlorobutadiene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Isopropylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Isopropyltoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Methylene chloride	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
n-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Hexanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
n-Propylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
sec-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Styrene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Methyl-2-pentanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
tert-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,1,2-Tetrachloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,2,2-Tetrachloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Tetrachloroethene (PCE)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
trans-1,2-DCE	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
trans-1,3-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,3-Trichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,4-Trichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,1-Trichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,2-Trichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Trichloroethene (TCE)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Trichlorofluoromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,3-Trichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-10 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:05:00 AM
Lab ID: 1207940-002 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Surr: 1,2-Dichloroethane-d4	188	70-130	S	%REC	1	7/26/2012 8:25:36 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/26/2012 8:25:36 PM
Surr: Dibromofluoromethane	92.1	70-130		%REC	1	7/26/2012 8:25:36 PM
Surr: Toluene-d8	94.8	70-130		%REC	1	7/26/2012 8:25:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	550	200		mg/Kg	20	7/23/2012 9:29:46 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	7/23/2012 9:29:46 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 9:29:46 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/27/2012 3:31:25 AM
Surr: BFB	99.9	84-116		%REC	5	7/27/2012 3:31:25 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.041	0.033		mg/Kg	1	8/2/2012 9:20:31 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:43:53 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:37:35 PM
Barium	610	5.0		mg/Kg	50	8/5/2012 1:02:12 PM
Beryllium	0.77	0.75		mg/Kg	5	8/4/2012 3:37:35 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:43:53 PM
Chromium	16	1.5		mg/Kg	5	8/1/2012 2:43:53 PM
Cobalt	5.0	1.5		mg/Kg	5	8/4/2012 3:37:35 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:14:21 PM
Lead	6.2	1.2		mg/Kg	5	8/4/2012 3:37:35 PM
Manganese	470	5.0		mg/Kg	50	8/5/2012 1:02:12 PM
Nickel	7.4	2.5		mg/Kg	5	8/4/2012 3:37:35 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:37:35 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:43:53 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 2:43:53 PM
Zinc	33	12		mg/Kg	5	8/4/2012 3:37:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 5:17:55 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Surr: 2,4,6-Tribromophenol	107	20.1-121		%REC	1	7/27/2012 5:17:55 PM
Surr: 2-Fluorobiphenyl	95.5	19-133		%REC	1	7/27/2012 5:17:55 PM
Surr: 2-Fluorophenol	92.9	20.2-108		%REC	1	7/27/2012 5:17:55 PM
Surr: 4-Terphenyl-d14	97.3	18.9-115		%REC	1	7/27/2012 5:17:55 PM
Surr: Nitrobenzene-d5	93.5	20.8-123		%REC	1	7/27/2012 5:17:55 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/27/2012 5:17:55 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	12.2	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Toluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Ethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Xylenes, Total	ND	2.54		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Methyl tert-butyl ether (MTBE)	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,4-Trimethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3,5-Trimethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichloroethane (EDC)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dibromoethane (EDB)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Naphthalene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1-Methylnaphthalene	ND	3.39		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Methylnaphthalene	ND	3.39		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Acetone	ND	25.4		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromodichloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromoform	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Butanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Carbon tetrachloride	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chloroform	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Chlorotoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Carbon disulfide	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Chlorotoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
cis-1,2-DCE	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
cis-1,3-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dibromo-3-chloropropane	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dibromochloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dibromomethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,4-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dichlorodifluoromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloroethane	0.918	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloroethene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichloropropane	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3-Dichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2,2-Dichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Hexachlorobutadiene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Isopropylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Isopropyltoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Methylene chloride	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
n-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Hexanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
n-Propylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
sec-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Styrene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Methyl-2-pentanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
tert-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,1,2-Tetrachloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,2,2-Tetrachloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Tetrachloroethene (PCE)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
trans-1,2-DCE	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
trans-1,3-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,3-Trichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,4-Trichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,1-Trichloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,2-Trichloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Trichloroethene (TCE)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Trichlorofluoromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,3-Trichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Surr: 1,2-Dichloroethane-d4	168	70-130	S	%REC	1	7/26/2012 8:53:14 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	7/26/2012 8:53:14 PM
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	7/26/2012 8:53:14 PM
Surr: Toluene-d8	96.6	70-130		%REC	1	7/26/2012 8:53:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-004 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	4300	200		mg/Kg	20	7/23/2012 9:51:40 AM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/23/2012 9:51:40 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 9:51:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/27/2012 4:00:09 AM
Surr: BFB	111	84-116		%REC	50	7/27/2012 4:00:09 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:22:17 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:48:46 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:39:56 PM
Barium	690	50		mg/Kg	500	8/5/2012 1:16:54 PM
Beryllium	0.88	0.75		mg/Kg	5	8/4/2012 3:39:56 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:48:46 PM
Chromium	10	1.5		mg/Kg	5	8/1/2012 2:48:46 PM
Cobalt	4.7	1.5		mg/Kg	5	8/4/2012 3:39:56 PM
Iron	13000	500		mg/Kg	500	8/5/2012 1:16:54 PM
Lead	5.0	1.2		mg/Kg	5	8/4/2012 3:39:56 PM
Manganese	190	0.50		mg/Kg	5	8/4/2012 3:39:56 PM
Nickel	7.9	2.5		mg/Kg	5	8/4/2012 3:39:56 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:39:56 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:48:46 PM
Vanadium	18	12		mg/Kg	5	8/1/2012 2:48:46 PM
Zinc	15	12		mg/Kg	5	8/4/2012 3:39:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 5:47:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
1-Methylnaphthalene	3.6	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Methylnaphthalene	4.2	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Naphthalene	1.5	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
Phenanthrene	1.1	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Surr: 2,4,6-Tribromophenol	87.4	20.1-121		%REC	1	7/27/2012 5:47:57 PM
Surr: 2-Fluorobiphenyl	70.0	19-133		%REC	1	7/27/2012 5:47:57 PM
Surr: 2-Fluorophenol	72.2	20.2-108		%REC	1	7/27/2012 5:47:57 PM
Surr: 4-Terphenyl-d14	75.0	18.9-115		%REC	1	7/27/2012 5:47:57 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/27/2012 5:47:57 PM
Surr: Phenol-d5	86.8	19.8-115		%REC	1	7/27/2012 5:47:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Toluene	1.4	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Ethylbenzene	3.8	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,4-Trimethylbenzene	6.7	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3,5-Trimethylbenzene	2.2	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Naphthalene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 11:36:10 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 11:36:10 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
n-Propylbenzene	1.4	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Xylenes, Total	9.3	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: Dibromofluoromethane	108	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: Toluene-d8	101	70-130		%REC	20	7/23/2012 11:36:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	3600	200		mg/Kg	20	7/23/2012 10:13:29 AM
Motor Oil Range Organics (MRO)	ND	980		mg/Kg	20	7/23/2012 10:13:29 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 10:13:29 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/27/2012 4:28:51 AM
Surr: BFB	115	84-116		%REC	50	7/27/2012 4:28:51 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:24:04 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:02:41 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:42:19 PM
Barium	410	10		mg/Kg	100	8/5/2012 1:21:10 PM
Beryllium	0.93	0.75		mg/Kg	5	8/4/2012 3:42:19 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:02:41 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 3:02:41 PM
Cobalt	5.0	1.5		mg/Kg	5	8/4/2012 3:42:19 PM
Iron	14000	500		mg/Kg	500	8/5/2012 1:23:20 PM
Lead	3.7	1.2		mg/Kg	5	8/4/2012 3:42:19 PM
Manganese	210	0.50		mg/Kg	5	8/4/2012 3:42:19 PM
Nickel	8.5	2.5		mg/Kg	5	8/4/2012 3:42:19 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:42:19 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:02:41 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 3:02:41 PM
Zinc	17	12		mg/Kg	5	8/4/2012 3:42:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 6:18:03 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
1-Methylnaphthalene	1.5	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Methylnaphthalene	1.6	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Surr: 2,4,6-Tribromophenol	111	20.1-121		%REC	1	7/27/2012 6:18:03 PM
Surr: 2-Fluorobiphenyl	92.7	19-133		%REC	1	7/27/2012 6:18:03 PM
Surr: 2-Fluorophenol	103	20.2-108		%REC	1	7/27/2012 6:18:03 PM
Surr: 4-Terphenyl-d14	110	18.9-115		%REC	1	7/27/2012 6:18:03 PM
Surr: Nitrobenzene-d5	114	20.8-123		%REC	1	7/27/2012 6:18:03 PM
Surr: Phenol-d5	106	19.8-115		%REC	1	7/27/2012 6:18:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Toluene	1.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Ethylbenzene	4.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,4-Trimethylbenzene	8.4	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3,5-Trimethylbenzene	2.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Naphthalene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1-Methylnaphthalene	ND	4.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Methylnaphthalene	ND	4.0		mg/Kg	20	7/24/2012 12:32:38 AM
Acetone	ND	15		mg/Kg	20	7/24/2012 12:32:38 AM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-005 **Matrix:** SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Isopropylbenzene	1.2	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
n-Propylbenzene	1.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-005 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Xylenes, Total	12	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: 4-Bromofluorobenzene	78.2	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: Dibromofluoromethane	104	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: Toluene-d8	104	70-130		%REC	20	7/24/2012 12:32:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	15000	190		mg/Kg	20	7/23/2012 10:57:23 AM
Motor Oil Range Organics (MRO)	ND	970		mg/Kg	20	7/23/2012 10:57:23 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 10:57:23 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	700	500		mg/Kg	100	7/27/2012 4:57:29 AM
Surr: BFB	111	84-116		%REC	100	7/27/2012 4:57:29 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.040	0.033		mg/Kg	1	8/2/2012 9:34:47 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:07:46 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:44:40 PM
Barium	150	0.50		mg/Kg	5	8/4/2012 3:44:40 PM
Beryllium	1.0	0.75		mg/Kg	5	8/4/2012 3:44:40 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:07:46 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 3:07:46 PM
Cobalt	5.9	1.5		mg/Kg	5	8/4/2012 3:44:40 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:25:53 PM
Lead	4.4	1.2		mg/Kg	5	8/4/2012 3:44:40 PM
Manganese	240	0.50		mg/Kg	5	8/4/2012 3:44:40 PM
Nickel	9.8	2.5		mg/Kg	5	8/4/2012 3:44:40 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:44:40 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:07:46 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 3:07:46 PM
Zinc	18	12		mg/Kg	5	8/4/2012 3:44:40 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 6:48:08 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
1-Methylnaphthalene	21	4.0		mg/Kg	10	7/30/2012 5:05:23 PM
2-Methylnaphthalene	32	4.0		mg/Kg	10	7/30/2012 5:05:23 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
3+4-Methylphenol	1.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Naphthalene	6.6	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
Phenanthrene	7.3	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Phenol	2.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Pyrene	1.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/27/2012 6:48:08 PM
Surr: 2-Fluorobiphenyl	46.3	19-133		%REC	1	7/27/2012 6:48:08 PM
Surr: 2-Fluorophenol	30.2	20.2-108		%REC	1	7/27/2012 6:48:08 PM
Surr: 4-Terphenyl-d14	62.5	18.9-115		%REC	1	7/27/2012 6:48:08 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/27/2012 6:48:08 PM
Surr: Phenol-d5	67.0	19.8-115		%REC	1	7/27/2012 6:48:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	5.9	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Toluene	45	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Ethylbenzene	17	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,4-Trimethylbenzene	38	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3,5-Trimethylbenzene	11	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Naphthalene	16	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1-Methylnaphthalene	29	10		mg/Kg	50	7/22/2012 12:37:39 AM
2-Methylnaphthalene	50	10		mg/Kg	50	7/22/2012 12:37:39 AM
Acetone	ND	38		mg/Kg	50	7/22/2012 12:37:39 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromoform	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromomethane	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
2-Butanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Carbon disulfide	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Chloroethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Chloromethane	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
2-Hexanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Isopropylbenzene	3.0	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
n-Butylbenzene	4.0	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
n-Propylbenzene	6.2	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Styrene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Xylenes, Total	86	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: 4-Bromofluorobenzene	86.2	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: Dibromofluoromethane	93.3	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: Toluene-d8	97.4	70-130		%REC	50	7/22/2012 12:37:39 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1500	97		mg/Kg	10	7/23/2012 7:19:35 AM
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	7/23/2012 7:19:35 AM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 7:19:35 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	370	100		mg/Kg	20	7/30/2012 4:07:16 PM
Surr: BFB	115	84-116		%REC	20	7/30/2012 4:07:16 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.097	0.033		mg/Kg	1	8/2/2012 9:36:35 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:12:50 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:47:03 PM
Barium	120	0.50		mg/Kg	5	8/4/2012 3:47:03 PM
Beryllium	0.95	0.75		mg/Kg	5	8/4/2012 3:47:03 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:12:50 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 3:12:50 PM
Cobalt	5.3	1.5		mg/Kg	5	8/4/2012 3:47:03 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:38:51 PM
Lead	2.6	1.2		mg/Kg	5	8/4/2012 3:47:03 PM
Manganese	300	10		mg/Kg	100	8/5/2012 1:36:26 PM
Nickel	8.7	2.5		mg/Kg	5	8/4/2012 3:47:03 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:47:03 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:12:50 PM
Vanadium	22	12		mg/Kg	5	8/1/2012 3:12:50 PM
Zinc	18	12		mg/Kg	5	8/4/2012 3:47:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 7:18:12 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
1-Methylnaphthalene	5.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2-Methylnaphthalene	7.7	2.0		mg/Kg	5	7/30/2012 5:35:57 PM
2-Methylphenol	1.1	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
3+4-Methylphenol	2.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Naphthalene	1.6	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
Phenanthrene	1.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Phenol	2.8	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Surr: 2,4,6-Tribromophenol	62.6	20.1-121		%REC	1	7/27/2012 7:18:12 PM
Surr: 2-Fluorobiphenyl	56.3	19-133		%REC	1	7/27/2012 7:18:12 PM
Surr: 2-Fluorophenol	64.9	20.2-108		%REC	1	7/27/2012 7:18:12 PM
Surr: 4-Terphenyl-d14	69.9	18.9-115		%REC	1	7/27/2012 7:18:12 PM
Surr: Nitrobenzene-d5	74.1	20.8-123		%REC	1	7/27/2012 7:18:12 PM
Surr: Phenol-d5	78.4	19.8-115		%REC	1	7/27/2012 7:18:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2.9	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Toluene	14	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Ethylbenzene	7.5	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,4-Trimethylbenzene	22	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3,5-Trimethylbenzene	6.3	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Naphthalene	10	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1-Methylnaphthalene	21	10		mg/Kg	50	7/24/2012 1:29:07 AM
2-Methylnaphthalene	36	10		mg/Kg	50	7/24/2012 1:29:07 AM
Acetone	47	38		mg/Kg	50	7/24/2012 1:29:07 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Isopropylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
n-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
n-Propylbenzene	3.6	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Xylenes, Total	36	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: Dibromofluoromethane	103	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: Toluene-d8	98.4	70-130		%REC	50	7/24/2012 1:29:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	99		mg/Kg	10	7/23/2012 7:41:16 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/23/2012 7:41:16 AM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 7:41:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 4:37:26 PM
Surr: BFB	129	84-116	S	%REC	10	7/30/2012 4:37:26 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.14	0.033		mg/Kg	1	8/2/2012 9:38:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:17:52 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:49:23 PM
Barium	350	10		mg/Kg	100	8/5/2012 1:41:23 PM
Beryllium	0.97	0.75		mg/Kg	5	8/4/2012 3:49:23 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:17:52 PM
Chromium	17	1.5		mg/Kg	5	8/1/2012 3:17:52 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 3:49:23 PM
Iron	8400	500		mg/Kg	500	8/5/2012 1:43:37 PM
Lead	2.0	1.2		mg/Kg	5	8/4/2012 3:49:23 PM
Manganese	340	10		mg/Kg	100	8/5/2012 1:41:23 PM
Nickel	9.1	2.5		mg/Kg	5	8/4/2012 3:49:23 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:49:23 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:17:52 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 3:17:52 PM
Zinc	36	12		mg/Kg	5	8/4/2012 3:49:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 6:06:31 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
1-Methylnaphthalene	1.6	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Methylnaphthalene	0.81	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Naphthalene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
Phenanthrene	1.4	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Pyrene	0.21	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Surr: 2,4,6-Tribromophenol	57.8	20.1-121		%REC	1	7/30/2012 6:06:31 PM
Surr: 2-Fluorobiphenyl	58.6	19-133		%REC	1	7/30/2012 6:06:31 PM
Surr: 2-Fluorophenol	60.7	20.2-108		%REC	1	7/30/2012 6:06:31 PM
Surr: 4-Terphenyl-d14	79.7	18.9-115		%REC	1	7/30/2012 6:06:31 PM
Surr: Nitrobenzene-d5	68.2	20.8-123		%REC	1	7/30/2012 6:06:31 PM
Surr: Phenol-d5	75.4	19.8-115		%REC	1	7/30/2012 6:06:31 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Toluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Ethylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,4-Trimethylbenzene	3.7	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3,5-Trimethylbenzene	1.4	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Naphthalene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1-Methylnaphthalene	12	4.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Methylnaphthalene	13	4.0		mg/Kg	20	7/24/2012 3:22:12 AM
Acetone	ND	15		mg/Kg	20	7/24/2012 3:22:12 AM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Xylenes, Total	2.4	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: Dibromofluoromethane	101	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: Toluene-d8	102	70-130		%REC	20	7/24/2012 3:22:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1300	99		mg/Kg	10	7/22/2012 8:07:03 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/22/2012 8:07:03 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/22/2012 8:07:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	58	50		mg/Kg	10	7/30/2012 5:07:41 PM
Surr: BFB	122	84-116	S	%REC	10	7/30/2012 5:07:41 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:40:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:23:00 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:01:53 PM
Barium	230	0.50		mg/Kg	5	8/4/2012 4:01:53 PM
Beryllium	1.0	0.75		mg/Kg	5	8/4/2012 4:01:53 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:23:00 PM
Chromium	13	1.5		mg/Kg	5	8/1/2012 3:23:00 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 4:01:53 PM
Iron	16000	500		mg/Kg	500	8/5/2012 1:48:51 PM
Lead	3.3	1.2		mg/Kg	5	8/4/2012 4:01:53 PM
Manganese	390	10		mg/Kg	100	8/5/2012 1:46:28 PM
Nickel	9.5	2.5		mg/Kg	5	8/4/2012 4:01:53 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 4:01:53 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:23:00 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 3:23:00 PM
Zinc	19	12		mg/Kg	5	8/4/2012 4:01:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 6:37:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
1-Methylnaphthalene	1.4	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Methylnaphthalene	2.3	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Naphthalene	0.65	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
Phenanthrene	0.60	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Surr: 2,4,6-Tribromophenol	92.0	20.1-121		%REC	1	7/30/2012 6:37:04 PM
Surr: 2-Fluorobiphenyl	80.4	19-133		%REC	1	7/30/2012 6:37:04 PM
Surr: 2-Fluorophenol	73.8	20.2-108		%REC	1	7/30/2012 6:37:04 PM
Surr: 4-Terphenyl-d14	92.5	18.9-115		%REC	1	7/30/2012 6:37:04 PM
Surr: Nitrobenzene-d5	78.1	20.8-123		%REC	1	7/30/2012 6:37:04 PM
Surr: Phenol-d5	92.9	19.8-115		%REC	1	7/30/2012 6:37:04 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Toluene	0.61	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Ethylbenzene	1.3	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,4-Trimethylbenzene	3.5	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3,5-Trimethylbenzene	0.93	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Naphthalene	1.2	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1-Methylnaphthalene	2.6	2.0		mg/Kg	10	7/24/2012 12:36:59 PM
2-Methylnaphthalene	4.6	2.0		mg/Kg	10	7/24/2012 12:36:59 PM
Acetone	ND	7.5		mg/Kg	10	7/24/2012 12:36:59 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromoform	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromomethane	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
2-Butanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Chloroethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Chloromethane	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
n-Propylbenzene	0.55	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Styrene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Xylenes, Total	5.5	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: 4-Bromofluorobenzene	83.2	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: Dibromofluoromethane	105	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: Toluene-d8	98.8	70-130		%REC	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	7700	200		mg/Kg	20	7/23/2012 11:41:16 AM
Motor Oil Range Organics (MRO)	ND	980		mg/Kg	20	7/23/2012 11:41:16 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 11:41:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	450	100		mg/Kg	20	7/30/2012 5:37:48 PM
Surr: BFB	143	84-116	S	%REC	20	7/30/2012 5:37:48 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.33	0.033		mg/Kg	1	8/2/2012 9:41:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Barium	980	10		mg/Kg	100	8/5/2012 1:51:24 PM
Beryllium	0.93	0.75		mg/Kg	5	8/4/2012 4:04:15 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:37:59 PM
Chromium	18	1.5		mg/Kg	5	8/1/2012 3:37:59 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 4:04:15 PM
Iron	16000	500		mg/Kg	500	8/5/2012 1:55:14 PM
Lead	3.3	1.2		mg/Kg	5	8/4/2012 4:04:15 PM
Manganese	350	10		mg/Kg	100	8/5/2012 1:51:24 PM
Nickel	9.1	2.5		mg/Kg	5	8/4/2012 4:04:15 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:04:15 PM
Vanadium	27	12		mg/Kg	5	8/1/2012 3:37:59 PM
Zinc	34	12		mg/Kg	5	8/4/2012 4:04:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 7:07:36 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
1-Methylnaphthalene	18	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2-Methylnaphthalene	28	5.0		mg/Kg	5	7/31/2012 1:08:09 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Naphthalene	3.7	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
Phenanthrene	6.6	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Pyrene	1.0	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Surr: 2,4,6-Tribromophenol	37.8	20.1-121		%REC	1	7/30/2012 7:07:36 PM
Surr: 2-Fluorobiphenyl	55.3	19-133		%REC	1	7/30/2012 7:07:36 PM
Surr: 2-Fluorophenol	38.2	20.2-108		%REC	1	7/30/2012 7:07:36 PM
Surr: 4-Terphenyl-d14	75.4	18.9-115		%REC	1	7/30/2012 7:07:36 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 7:07:36 PM
Surr: Phenol-d5	50.0	19.8-115		%REC	1	7/30/2012 7:07:36 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Ethylbenzene	4.3	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,4-Trimethylbenzene	38	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3,5-Trimethylbenzene	12	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Naphthalene	11	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1-Methylnaphthalene	31	10		mg/Kg	50	7/24/2012 5:15:17 AM
2-Methylnaphthalene	55	10		mg/Kg	50	7/24/2012 5:15:17 AM
Acetone	ND	38		mg/Kg	50	7/24/2012 5:15:17 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Isopropylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
n-Butylbenzene	3.3	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
n-Propylbenzene	4.0	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Xylenes, Total	45	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: 4-Bromofluorobenzene	76.0	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: Dibromofluoromethane	109	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: Toluene-d8	102	70-130		%REC	50	7/24/2012 5:15:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2800	99		mg/Kg	10	7/22/2012 9:34:51 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/22/2012 9:34:51 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/22/2012 9:34:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	7/30/2012 6:07:52 PM
Surr: BFB	96.8	84-116		%REC	20	7/30/2012 6:07:52 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:43:43 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Barium	190	0.50		mg/Kg	5	8/4/2012 4:06:36 PM
Beryllium	1.0	0.75		mg/kg	5	8/15/2012 8:29:04 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:42:54 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 3:42:54 PM
Cobalt	4.9	1.5		mg/Kg	5	8/4/2012 4:06:36 PM
Iron	14000	500		mg/Kg	500	8/5/2012 1:57:49 PM
Lead	2.9	1.2		mg/Kg	5	8/4/2012 4:06:36 PM
Manganese	240	0.50		mg/Kg	5	8/4/2012 4:06:36 PM
Nickel	8.1	2.5		mg/Kg	5	8/4/2012 4:06:36 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:06:36 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 3:42:54 PM
Zinc	19	12		mg/Kg	5	8/4/2012 4:06:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Aniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Azobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Carbazole	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Chrysene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 7:38:08 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Fluorene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
1-Methylnaphthalene	17	5.0		mg/Kg	5	7/31/2012 1:38:27 PM
2-Methylnaphthalene	27	5.0		mg/Kg	5	7/31/2012 1:38:27 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Naphthalene	4.3	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
Phenanthrene	6.2	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Phenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Surr: 2,4,6-Tribromophenol	91.6	20.1-121		%REC	1	7/30/2012 7:38:08 PM
Surr: 2-Fluorobiphenyl	99.9	19-133		%REC	1	7/30/2012 7:38:08 PM
Surr: 2-Fluorophenol	105	20.2-108		%REC	1	7/30/2012 7:38:08 PM
Surr: 4-Terphenyl-d14	120	18.9-115	S	%REC	1	7/30/2012 7:38:08 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 7:38:08 PM
Surr: Phenol-d5	122	19.8-115	S	%REC	1	7/30/2012 7:38:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	0.84	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Toluene	0.83	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Ethylbenzene	1.7	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,4-Trimethylbenzene	4.8	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3,5-Trimethylbenzene	0.87	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Naphthalene	1.4	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1-Methylnaphthalene	3.3	2.0		mg/Kg	10	7/24/2012 1:33:50 PM
2-Methylnaphthalene	6.1	2.0		mg/Kg	10	7/24/2012 1:33:50 PM
Acetone	ND	7.5		mg/Kg	10	7/24/2012 1:33:50 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromoform	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromomethane	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
2-Butanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Chloroethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Chloromethane	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
n-Butylbenzene	0.51	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
n-Propylbenzene	0.73	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Styrene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Xylenes, Total	5.3	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: 4-Bromofluorobenzene	81.7	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: Dibromofluoromethane	110	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: Toluene-d8	103	70-130		%REC	10	7/24/2012 1:33:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	9.7		mg/Kg	1	7/23/2012 1:01:37 PM
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	7/23/2012 1:01:37 PM
Surr: DNOP	108	77.6-140		%REC	1	7/23/2012 1:01:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 6:38:08 PM
Surr: BFB	105	84-116		%REC	5	7/30/2012 6:38:08 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.14	0.033		mg/Kg	1	8/2/2012 9:45:29 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Barium	590	2.0		mg/Kg	20	8/5/2012 2:00:21 PM
Beryllium	0.83	0.75		mg/kg	5	8/15/2012 8:33:02 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:48:04 PM
Chromium	21	1.5		mg/Kg	5	8/1/2012 3:48:04 PM
Cobalt	5.4	1.5		mg/Kg	5	8/4/2012 4:09:00 PM
Iron	14000	500		mg/Kg	500	8/5/2012 2:10:31 PM
Lead	7.0	1.2		mg/Kg	5	8/4/2012 4:09:00 PM
Manganese	550	2.0		mg/Kg	20	8/5/2012 2:00:21 PM
Nickel	9.7	2.5		mg/Kg	5	8/4/2012 4:09:00 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:09:00 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 3:48:04 PM
Zinc	59	12		mg/Kg	5	8/4/2012 4:09:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 8:08:37 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Surr: 2,4,6-Tribromophenol	95.1	20.1-121		%REC	1	7/30/2012 8:08:37 PM
Surr: 2-Fluorobiphenyl	89.2	19-133		%REC	1	7/30/2012 8:08:37 PM
Surr: 2-Fluorophenol	80.1	20.2-108		%REC	1	7/30/2012 8:08:37 PM
Surr: 4-Terphenyl-d14	108	18.9-115		%REC	1	7/30/2012 8:08:37 PM
Surr: Nitrobenzene-d5	97.0	20.8-123		%REC	1	7/30/2012 8:08:37 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/30/2012 8:08:37 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Toluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Ethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Xylenes, Total	ND	2.93		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Methyl tert-butyl ether (MTBE)	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,4-Trimethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3,5-Trimethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichloroethane (EDC)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dibromoethane (EDB)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Naphthalene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1-Methylnaphthalene	ND	3.90		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Methylnaphthalene	ND	3.90		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Acetone	ND	29.3		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromodichloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromoform	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Butanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Carbon tetrachloride	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chloroform	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Chlorotoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Carbon disulfide	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Chlorotoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
cis-1,2-DCE	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
cis-1,3-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dibromo-3-chloropropane	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dibromochloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dibromomethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,4-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dichlorodifluoromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloroethene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichloropropane	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3-Dichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2,2-Dichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Hexachlorobutadiene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Isopropylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Isopropyltoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Methylene chloride	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
n-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Hexanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
n-Propylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
sec-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Styrene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Methyl-2-pentanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
tert-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,1,2-Tetrachloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,2,2-Tetrachloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Tetrachloroethene (PCE)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
trans-1,2-DCE	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
trans-1,3-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,3-Trichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,4-Trichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,1-Trichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,2-Trichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Trichloroethene (TCE)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Trichlorofluoromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,3-Trichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: Dibromofluoromethane	86.3	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: Toluene-d8	93.5	70-130		%REC	1	7/26/2012 9:21:01 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	10		mg/Kg	1	7/23/2012 1:27:14 PM
Motor Oil Range Organics (MRO)	80	51		mg/Kg	1	7/23/2012 1:27:14 PM
Surr: DNOP	112	77.6-140		%REC	1	7/23/2012 1:27:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	27	25		mg/Kg	5	7/30/2012 7:08:15 PM
Surr: BFB	130	84-116	S	%REC	5	7/30/2012 7:08:15 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.058	0.033		mg/Kg	1	8/2/2012 9:50:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Barium	620	2.0		mg/Kg	20	8/5/2012 2:13:07 PM
Beryllium	0.84	0.75		mg/kg	5	8/15/2012 8:36:01 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:53:08 PM
Chromium	17	1.5		mg/Kg	5	8/1/2012 3:53:08 PM
Cobalt	4.9	1.5		mg/Kg	5	8/4/2012 4:11:21 PM
Iron	15000	500		mg/Kg	500	8/5/2012 2:15:18 PM
Lead	5.8	1.2		mg/Kg	5	8/4/2012 4:11:21 PM
Manganese	700	2.0		mg/Kg	20	8/5/2012 2:13:07 PM
Nickel	7.9	2.5		mg/Kg	5	8/4/2012 4:11:21 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:11:21 PM
Vanadium	24	12		mg/Kg	5	8/1/2012 3:53:08 PM
Zinc	38	12		mg/Kg	5	8/4/2012 4:11:21 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 8:39:02 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Surr: 2,4,6-Tribromophenol	95.2	20.1-121		%REC	1	7/30/2012 8:39:02 PM
Surr: 2-Fluorobiphenyl	92.3	19-133		%REC	1	7/30/2012 8:39:02 PM
Surr: 2-Fluorophenol	87.8	20.2-108		%REC	1	7/30/2012 8:39:02 PM
Surr: 4-Terphenyl-d14	106	18.9-115		%REC	1	7/30/2012 8:39:02 PM
Surr: Nitrobenzene-d5	99.5	20.8-123		%REC	1	7/30/2012 8:39:02 PM
Surr: Phenol-d5	86.6	19.8-115		%REC	1	7/30/2012 8:39:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Toluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Ethylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Xylenes, Total	ND	3.75		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Methyl tert-butyl ether (MTBE)	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,4-Trimethylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3,5-Trimethylbenzene	7.26	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichloroethane (EDC)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dibromoethane (EDB)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Naphthalene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1-Methylnaphthalene	15.2	5.00		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Methylnaphthalene	ND	5.00		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Acetone	ND	37.5		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromodichloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromoform	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Butanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Carbon tetrachloride	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chloroform	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Chlorotoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Carbon disulfide	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Chlorotoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
cis-1,2-DCE	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
cis-1,3-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dibromo-3-chloropropane	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dibromochloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dibromomethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,4-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dichlorodifluoromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloroethene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichloropropane	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3-Dichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2,2-Dichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Hexachlorobutadiene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Isopropylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Isopropyltoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Methylene chloride	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
n-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Hexanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
n-Propylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
sec-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Styrene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Methyl-2-pentanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
tert-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,1,2-Tetrachloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,2,2-Tetrachloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Tetrachloroethene (PCE)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
trans-1,2-DCE	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
trans-1,3-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,3-Trichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,4-Trichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,1-Trichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,2-Trichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Trichloroethene (TCE)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Trichlorofluoromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,3-Trichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Surr: 1,2-Dichloroethane-d4	187	70-130	S	%REC	1	7/26/2012 9:48:36 PM
Surr: 4-Bromofluorobenzene	154	70-130	S	%REC	1	7/26/2012 9:48:36 PM
Surr: Dibromofluoromethane	87.3	70-130		%REC	1	7/26/2012 9:48:36 PM
Surr: Toluene-d8	99.6	70-130		%REC	1	7/26/2012 9:48:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1200	96		mg/Kg	10	7/23/2012 3:37:11 PM
Motor Oil Range Organics (MRO)	680	480		mg/Kg	10	7/23/2012 3:37:11 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 3:37:11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 7:38:29 PM
Surr: BFB	108	84-116		%REC	10	7/30/2012 7:38:29 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.20	0.033		mg/Kg	1	8/2/2012 9:52:34 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Barium	620	2.0		mg/Kg	20	8/5/2012 2:17:56 PM
Beryllium	0.86	0.75		mg/kg	5	8/15/2012 8:38:55 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:58:16 PM
Chromium	25	1.5		mg/Kg	5	8/1/2012 3:58:16 PM
Cobalt	5.2	1.5		mg/Kg	5	8/4/2012 4:13:45 PM
Iron	16000	500		mg/Kg	500	8/5/2012 2:20:11 PM
Lead	10	1.2		mg/Kg	5	8/4/2012 4:13:45 PM
Manganese	580	2.0		mg/Kg	20	8/5/2012 2:17:56 PM
Nickel	8.5	2.5		mg/Kg	5	8/4/2012 4:13:45 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:13:45 PM
Vanadium	30	12		mg/Kg	5	8/1/2012 3:58:16 PM
Zinc	68	12		mg/Kg	5	8/4/2012 4:13:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Aniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Azobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Carbazole	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Chrysene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 9:09:24 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Fluorene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Naphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
Phenanthrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Phenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Surr: 2,4,6-Tribromophenol	90.2	20.1-121		%REC	1	7/30/2012 9:09:24 PM
Surr: 2-Fluorobiphenyl	82.9	19-133		%REC	1	7/30/2012 9:09:24 PM
Surr: 2-Fluorophenol	75.6	20.2-108		%REC	1	7/30/2012 9:09:24 PM
Surr: 4-Terphenyl-d14	97.7	18.9-115		%REC	1	7/30/2012 9:09:24 PM
Surr: Nitrobenzene-d5	84.3	20.8-123		%REC	1	7/30/2012 9:09:24 PM
Surr: Phenol-d5	80.1	19.8-115		%REC	1	7/30/2012 9:09:24 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Toluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Ethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Xylenes, Total	ND	3.27		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Methyl tert-butyl ether (MTBE)	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,4-Trimethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3,5-Trimethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichloroethane (EDC)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dibromoethane (EDB)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Naphthalene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1-Methylnaphthalene	ND	4.36		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Methylnaphthalene	ND	4.36		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Acetone	ND	32.7		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromodichloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromoform	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Butanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Carbon tetrachloride	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chloroform	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Chlorotoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Carbon disulfide	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Chlorotoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
cis-1,2-DCE	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
cis-1,3-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dibromo-3-chloropropane	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dibromochloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dibromomethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,4-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dichlorodifluoromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloroethene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichloropropane	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3-Dichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2,2-Dichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Hexachlorobutadiene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Isopropylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Isopropyltoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Methylene chloride	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
n-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Hexanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
n-Propylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
sec-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Styrene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Methyl-2-pentanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
tert-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,1,2-Tetrachloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,2,2-Tetrachloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Tetrachloroethene (PCE)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
trans-1,2-DCE	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
trans-1,3-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,3-Trichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,4-Trichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,1-Trichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,2-Trichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Trichloroethene (TCE)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Trichlorofluoromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,3-Trichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Surr: 1,2-Dichloroethane-d4	180	70-130	S	%REC	1	7/26/2012 10:43:57 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	7/26/2012 10:43:57 PM
Surr: Dibromofluoromethane	79.8	70-130		%REC	1	7/26/2012 10:43:57 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	7/26/2012 10:43:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	14000	510		mg/Kg	50	7/23/2012 2:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	7/23/2012 2:15:26 PM
Surr: DNOP	0	77.6-140	S	%REC	50	7/23/2012 2:15:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	570	500		mg/Kg	100	7/30/2012 8:08:47 PM
Surr: BFB	119	84-116	S	%REC	100	7/30/2012 8:08:47 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.15	0.033		mg/Kg	1	8/2/2012 9:54:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:15:18 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:16:06 PM
Barium	680	2.0		mg/Kg	20	8/5/2012 2:22:47 PM
Beryllium	0.76	0.75		mg/Kg	5	8/4/2012 4:16:06 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:15:18 PM
Chromium	26	1.5		mg/Kg	5	8/1/2012 4:15:18 PM
Cobalt	5.5	1.5		mg/Kg	5	8/4/2012 4:16:06 PM
Iron	15000	500		mg/Kg	500	8/5/2012 2:24:54 PM
Lead	14	1.2		mg/Kg	5	8/4/2012 4:16:06 PM
Manganese	540	2.0		mg/Kg	20	8/5/2012 2:22:47 PM
Nickel	8.9	2.5		mg/Kg	5	8/4/2012 4:16:06 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:15:18 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:16:06 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:15:18 PM
Zinc	65	12		mg/Kg	5	8/4/2012 4:16:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Aniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Azobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzoic acid	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Carbazole	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Chrysene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/30/2012 9:39:42 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Fluorene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Isophorone	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
1-Methylnaphthalene	4.5	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Methylnaphthalene	7.0	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Naphthalene	2.8	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
Nitrobenzene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
Phenanthrene	2.2	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Phenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Pyridine	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/30/2012 9:39:42 PM
Surr: 2-Fluorobiphenyl	48.1	19-133		%REC	1	7/30/2012 9:39:42 PM
Surr: 2-Fluorophenol	28.9	20.2-108		%REC	1	7/30/2012 9:39:42 PM
Surr: 4-Terphenyl-d14	50.7	18.9-115		%REC	1	7/30/2012 9:39:42 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 9:39:42 PM
Surr: Phenol-d5	33.1	19.8-115		%REC	1	7/30/2012 9:39:42 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Ethylbenzene	17	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,4-Trimethylbenzene	37	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3,5-Trimethylbenzene	13	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Naphthalene	8.8	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1-Methylnaphthalene	12	10		mg/Kg	50	7/24/2012 7:08:15 AM
2-Methylnaphthalene	20	10		mg/Kg	50	7/24/2012 7:08:15 AM
Acetone	ND	38		mg/Kg	50	7/24/2012 7:08:15 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Isopropylbenzene	3.5	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
n-Butylbenzene	2.8	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
n-Propylbenzene	5.7	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Xylenes, Total	53	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: 4-Bromofluorobenzene	86.1	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: Dibromofluoromethane	108	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: Toluene-d8	104	70-130		%REC	50	7/24/2012 7:08:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	300	10		mg/Kg	1	7/23/2012 12:03:58 PM
Motor Oil Range Organics (MRO)	240	51		mg/Kg	1	7/23/2012 12:03:58 PM
Surr: DNOP	120	77.6-140		%REC	1	7/23/2012 12:03:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	20		mg/Kg	4	7/30/2012 8:38:54 PM
Surr: BFB	107	84-116		%REC	4	7/30/2012 8:38:54 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.27	0.033		mg/Kg	1	8/2/2012 9:56:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:20:29 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:18:27 PM
Barium	490	2.0		mg/Kg	20	8/5/2012 2:29:09 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:18:27 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:20:29 PM
Chromium	63	1.5		mg/Kg	5	8/1/2012 4:20:29 PM
Cobalt	5.3	1.5		mg/Kg	5	8/4/2012 4:18:27 PM
Iron	18000	500		mg/Kg	500	8/5/2012 2:31:23 PM
Lead	14	1.2		mg/Kg	5	8/4/2012 4:18:27 PM
Manganese	550	2.0		mg/Kg	20	8/5/2012 2:29:09 PM
Nickel	9.8	2.5		mg/Kg	5	8/4/2012 4:18:27 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:20:29 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:18:27 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:20:29 PM
Zinc	190	12		mg/Kg	5	8/4/2012 4:18:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 10:09:54 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Surr: 2,4,6-Tribromophenol	77.6	20.1-121		%REC	1	7/30/2012 10:09:54 PM
Surr: 2-Fluorobiphenyl	77.9	19-133		%REC	1	7/30/2012 10:09:54 PM
Surr: 2-Fluorophenol	68.0	20.2-108		%REC	1	7/30/2012 10:09:54 PM
Surr: 4-Terphenyl-d14	76.2	18.9-115		%REC	1	7/30/2012 10:09:54 PM
Surr: Nitrobenzene-d5	76.9	20.8-123		%REC	1	7/30/2012 10:09:54 PM
Surr: Phenol-d5	67.6	19.8-115		%REC	1	7/30/2012 10:09:54 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Toluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Ethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Xylenes, Total	ND	3.68		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Methyl tert-butyl ether (MTBE)	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,4-Trimethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3,5-Trimethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichloroethane (EDC)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dibromoethane (EDB)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Naphthalene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1-Methylnaphthalene	ND	4.90		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Methylnaphthalene	ND	4.90		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Acetone	ND	36.8		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromodichloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromoform	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Butanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Carbon tetrachloride	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chloroform	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Chlorotoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Carbon disulfide	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Chlorotoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
cis-1,2-DCE	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
cis-1,3-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dibromo-3-chloropropane	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dibromochloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dibromomethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,4-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dichlorodifluoromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloroethene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichloropropane	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3-Dichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2,2-Dichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Hexachlorobutadiene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Isopropylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Isopropyltoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Methylene chloride	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
n-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Hexanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
n-Propylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
sec-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Styrene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Methyl-2-pentanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
tert-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,1,2-Tetrachloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,2,2-Tetrachloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Tetrachloroethene (PCE)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
trans-1,2-DCE	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
trans-1,3-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,3-Trichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,4-Trichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,1-Trichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,2-Trichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Trichloroethene (TCE)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Trichlorofluoromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,3-Trichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Surr: 1,2-Dichloroethane-d4	179	70-130	S	%REC	1	7/26/2012 11:11:45 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	7/26/2012 11:11:45 PM
Surr: Dibromofluoromethane	85.3	70-130		%REC	1	7/26/2012 11:11:45 PM
Surr: Toluene-d8	97.3	70-130		%REC	1	7/26/2012 11:11:45 PM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	280	9.8		mg/Kg	1	7/23/2012 1:53:07 PM
Motor Oil Range Organics (MRO)	220	49		mg/Kg	1	7/23/2012 1:53:07 PM
Surr: DNOP	112	77.6-140		%REC	1	7/23/2012 1:53:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	20		mg/Kg	4	7/31/2012 12:40:15 AM
Surr: BFB	101	84-116		%REC	4	7/31/2012 12:40:15 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.23	0.033		mg/Kg	1	8/2/2012 9:57:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:25:31 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:20:48 PM
Barium	460	2.0		mg/Kg	20	8/5/2012 2:33:58 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:20:48 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:25:31 PM
Chromium	29	1.5		mg/Kg	5	8/1/2012 4:25:31 PM
Cobalt	3.9	1.5		mg/Kg	5	8/4/2012 4:20:48 PM
Iron	12000	500		mg/Kg	500	8/5/2012 2:44:11 PM
Lead	9.9	1.2		mg/Kg	5	8/4/2012 4:20:48 PM
Manganese	870	2.0		mg/Kg	20	8/5/2012 2:33:58 PM
Nickel	7.1	2.5		mg/Kg	5	8/4/2012 4:20:48 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:25:31 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:20:48 PM
Vanadium	19	12		mg/Kg	5	8/1/2012 4:25:31 PM
Zinc	160	12		mg/Kg	5	8/4/2012 4:20:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 10:40:02 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM

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- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Surr: 2,4,6-Tribromophenol	89.3	20.1-121		%REC	1	7/30/2012 10:40:02 PM
Surr: 2-Fluorobiphenyl	81.6	19-133		%REC	1	7/30/2012 10:40:02 PM
Surr: 2-Fluorophenol	78.7	20.2-108		%REC	1	7/30/2012 10:40:02 PM
Surr: 4-Terphenyl-d14	78.3	18.9-115		%REC	1	7/30/2012 10:40:02 PM
Surr: Nitrobenzene-d5	85.1	20.8-123		%REC	1	7/30/2012 10:40:02 PM
Surr: Phenol-d5	76.1	19.8-115		%REC	1	7/30/2012 10:40:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Toluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Ethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Xylenes, Total	ND	2.62		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Methyl tert-butyl ether (MTBE)	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,4-Trimethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3,5-Trimethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichloroethane (EDC)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dibromoethane (EDB)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Naphthalene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1-Methylnaphthalene	ND	3.49		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Methylnaphthalene	ND	3.49		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Acetone	ND	26.2		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromodichloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromoform	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Butanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Carbon tetrachloride	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chloroform	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Chlorotoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Carbon disulfide	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Chlorotoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
cis-1,2-DCE	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
cis-1,3-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dibromo-3-chloropropane	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dibromochloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dibromomethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,4-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dichlorodifluoromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloroethene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichloropropane	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3-Dichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2,2-Dichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Hexachlorobutadiene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Isopropylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Isopropyltoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Methylene chloride	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
n-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Hexanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
n-Propylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
sec-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Styrene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Methyl-2-pentanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
tert-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,1,2-Tetrachloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,2,2-Tetrachloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Tetrachloroethene (PCE)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
trans-1,2-DCE	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
trans-1,3-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,3-Trichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,4-Trichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,1-Trichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,2-Trichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Trichloroethene (TCE)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Trichlorofluoromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,3-Trichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Surr: 1,2-Dichloroethane-d4	182	70-130	S	%REC	1	7/26/2012 11:39:28 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	1	7/26/2012 11:39:28 PM
Surr: Dibromofluoromethane	85.8	70-130		%REC	1	7/26/2012 11:39:28 PM
Surr: Toluene-d8	94.2	70-130		%REC	1	7/26/2012 11:39:28 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	53	10		mg/Kg	1	7/23/2012 9:56:26 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/23/2012 9:56:26 AM
Surr: DNOP	108	77.6-140		%REC	1	7/23/2012 9:56:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2012 1:10:26 AM
Surr: BFB	118	84-116	S	%REC	1	7/31/2012 1:10:26 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:59:44 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:30:33 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:23:19 PM
Barium	340	2.0		mg/Kg	20	8/5/2012 2:46:45 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:23:19 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:30:33 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 4:30:33 PM
Cobalt	4.6	1.5		mg/Kg	5	8/4/2012 4:23:19 PM
Iron	13000	500		mg/Kg	500	8/5/2012 2:48:56 PM
Lead	2.5	1.2		mg/Kg	5	8/4/2012 4:23:19 PM
Manganese	450	2.0		mg/Kg	20	8/5/2012 2:46:45 PM
Nickel	7.1	2.5		mg/Kg	5	8/4/2012 4:23:19 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:30:33 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:23:19 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:30:33 PM
Zinc	20	12		mg/Kg	5	8/4/2012 4:23:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 11:10:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Naphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Surr: 2,4,6-Tribromophenol	81.4	20.1-121		%REC	1	7/30/2012 11:10:04 PM
Surr: 2-Fluorobiphenyl	67.6	19-133		%REC	1	7/30/2012 11:10:04 PM
Surr: 2-Fluorophenol	59.3	20.2-108		%REC	1	7/30/2012 11:10:04 PM
Surr: 4-Terphenyl-d14	71.8	18.9-115		%REC	1	7/30/2012 11:10:04 PM
Surr: Nitrobenzene-d5	70.4	20.8-123		%REC	1	7/30/2012 11:10:04 PM
Surr: Phenol-d5	64.0	19.8-115		%REC	1	7/30/2012 11:10:04 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Naphthalene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:30:42 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:30:42 PM
Acetone	ND	0.75		mg/Kg	1	7/24/2012 2:30:42 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromoform	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromomethane	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
2-Butanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Chloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Chloromethane	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Styrene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: Toluene-d8	105	70-130		%REC	1	7/24/2012 2:30:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/23/2012 2:19:03 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2012 2:19:03 PM
Surr: DNOP	109	77.6-140		%REC	1	7/23/2012 2:19:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 2:47:18 PM
Surr: BFB	104	84-116		%REC	1	7/30/2012 2:47:18 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:01:33 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:35:32 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:37:38 PM
Barium	180	0.50		mg/Kg	5	8/4/2012 4:37:38 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:37:38 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:35:32 PM
Chromium	6.6	1.5		mg/Kg	5	8/1/2012 4:35:32 PM
Cobalt	3.2	1.5		mg/Kg	5	8/4/2012 4:37:38 PM
Iron	8200	500		mg/kg	500	8/15/2012 8:55:15 AM
Lead	2.2	1.2		mg/Kg	5	8/4/2012 4:37:38 PM
Manganese	300	2.0		mg/kg	20	8/15/2012 8:41:50 AM
Nickel	6.9	2.5		mg/Kg	5	8/4/2012 4:37:38 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:35:32 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:37:38 PM
Vanadium	22	12		mg/Kg	5	8/1/2012 4:35:32 PM
Zinc	18	12		mg/Kg	5	8/4/2012 4:37:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 2:08:54 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Surr: 2,4,6-Tribromophenol	96.3	20.1-121		%REC	1	7/31/2012 2:08:54 PM
Surr: 2-Fluorobiphenyl	94.1	19-133		%REC	1	7/31/2012 2:08:54 PM
Surr: 2-Fluorophenol	84.0	20.2-108		%REC	1	7/31/2012 2:08:54 PM
Surr: 4-Terphenyl-d14	106	18.9-115		%REC	1	7/31/2012 2:08:54 PM
Surr: Nitrobenzene-d5	93.7	20.8-123		%REC	1	7/31/2012 2:08:54 PM
Surr: Phenol-d5	84.7	19.8-115		%REC	1	7/31/2012 2:08:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Naphthalene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:59:07 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:59:07 PM
Acetone	ND	0.75		mg/Kg	1	7/24/2012 2:59:07 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromoform	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromomethane	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
2-Butanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Chloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Chloromethane	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Styrene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: Toluene-d8	97.9	70-130		%REC	1	7/24/2012 2:59:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	29	9.8		mg/Kg	1	7/23/2012 4:03:03 PM
Motor Oil Range Organics (MRO)	51	49		mg/Kg	1	7/23/2012 4:03:03 PM
Surr: DNOP	110	77.6-140		%REC	1	7/23/2012 4:03:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 3:16:07 PM
Surr: BFB	101	84-116		%REC	1	7/30/2012 3:16:07 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.063	0.033		mg/Kg	1	8/2/2012 10:03:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Barium	790	5.0		mg/kg	50	8/18/2012 11:41:55 AM
Beryllium	0.81	0.75		mg/Kg	5	8/1/2012 2:07:41 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:07:41 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 2:07:41 PM
Cobalt	4.8	1.5		mg/Kg	5	8/1/2012 2:07:41 PM
Iron	12000	500		mg/kg	500	8/18/2012 11:44:19 AM
Lead	4.1	1.2		mg/Kg	5	8/1/2012 2:07:41 PM
Manganese	640	5.0		mg/kg	50	8/18/2012 11:41:55 AM
Nickel	8.0	2.5		mg/Kg	5	8/1/2012 2:07:41 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:07:41 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 2:07:41 PM
Zinc	34	12		mg/Kg	5	8/1/2012 2:07:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Aniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Azobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzoic acid	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Carbazole	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chloroaniline	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Chrysene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/31/2012 3:40:39 PM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Fluorene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Isophorone	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Naphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
Nitrobenzene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
Phenanthrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Phenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Pyridine	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Surr: 2,4,6-Tribromophenol	89.5	20.1-121		%REC	1	7/31/2012 3:40:39 PM
Surr: 2-Fluorobiphenyl	98.4	19-133		%REC	1	7/31/2012 3:40:39 PM
Surr: 2-Fluorophenol	93.9	20.2-108		%REC	1	7/31/2012 3:40:39 PM
Surr: 4-Terphenyl-d14	136	18.9-115	S	%REC	1	7/31/2012 3:40:39 PM
Surr: Nitrobenzene-d5	104	20.8-123		%REC	1	7/31/2012 3:40:39 PM
Surr: Phenol-d5	91.9	19.8-115		%REC	1	7/31/2012 3:40:39 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Toluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Naphthalene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 2:29:14 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 2:29:14 PM
Acetone	ND	0.75		mg/Kg	1	7/25/2012 2:29:14 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromoform	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromomethane	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
2-Butanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Chloroethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Chloroform	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Chloromethane	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Styrene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Vinyl chloride	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: Toluene-d8	104	70-130		%REC	1	7/25/2012 2:29:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2900	190		mg/Kg	20	7/24/2012 3:30:47 PM
Motor Oil Range Organics (MRO)	2800	970		mg/Kg	20	7/24/2012 3:30:47 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 3:30:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 3:44:56 PM
Surr: BFB	102	84-116		%REC	5	7/30/2012 3:44:56 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	1.3	0.16		mg/Kg	5	8/2/2012 10:26:54 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Barium	850	5.0		mg/Kg	50	8/6/2012 4:20:43 PM
Beryllium	0.86	0.75		mg/Kg	5	8/5/2012 5:04:02 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:04:02 PM
Chromium	20	1.5		mg/Kg	5	8/5/2012 5:04:02 PM
Cobalt	5.4	1.5		mg/Kg	5	8/5/2012 5:04:02 PM
Iron	17000	500		mg/Kg	500	8/6/2012 4:23:05 PM
Lead	7.1	1.2		mg/Kg	5	8/5/2012 5:04:02 PM
Manganese	560	5.0		mg/Kg	50	8/6/2012 4:20:43 PM
Nickel	12	2.5		mg/Kg	5	8/5/2012 5:04:02 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:04:02 PM
Vanadium	28	12		mg/Kg	5	8/5/2012 5:04:02 PM
Zinc	230	12		mg/Kg	5	8/5/2012 5:04:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Aniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Azobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzoic acid	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Carbazole	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chloroaniline	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Chrysene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/31/2012 4:11:12 PM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Fluorene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Isophorone	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Naphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
Nitrobenzene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
Phenanthrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Phenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Pyridine	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Surr: 2,4,6-Tribromophenol	118	20.1-121		%REC	1	7/31/2012 4:11:12 PM
Surr: 2-Fluorobiphenyl	101	19-133		%REC	1	7/31/2012 4:11:12 PM
Surr: 2-Fluorophenol	88.9	20.2-108		%REC	1	7/31/2012 4:11:12 PM
Surr: 4-Terphenyl-d14	130	18.9-115	S	%REC	1	7/31/2012 4:11:12 PM
Surr: Nitrobenzene-d5	104	20.8-123		%REC	1	7/31/2012 4:11:12 PM
Surr: Phenol-d5	86.7	19.8-115		%REC	1	7/31/2012 4:11:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	1.29	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Toluene	2.73	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Ethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Xylenes, Total	ND	3.05		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Methyl tert-butyl ether (MTBE)	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,4-Trimethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3,5-Trimethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichloroethane (EDC)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dibromoethane (EDB)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Naphthalene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1-Methylnaphthalene	ND	4.07		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Methylnaphthalene	ND	4.07		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Acetone	ND	30.5		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromodichloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromoform	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Butanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Carbon tetrachloride	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chloroform	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Chlorotoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Carbon disulfide	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Chlorotoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
cis-1,2-DCE	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
cis-1,3-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dibromo-3-chloropropane	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dibromochloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dibromomethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,4-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dichlorodifluoromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloroethene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichloropropane	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3-Dichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2,2-Dichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Hexachlorobutadiene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Isopropylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Isopropyltoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Methylene chloride	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
n-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Hexanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
n-Propylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
sec-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Styrene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Methyl-2-pentanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
tert-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,1,2-Tetrachloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,2,2-Tetrachloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Tetrachloroethene (PCE)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
trans-1,2-DCE	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
trans-1,3-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,3-Trichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,4-Trichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,1-Trichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,2-Trichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Trichloroethene (TCE)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Trichlorofluoromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,3-Trichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Surr: 1,2-Dichloroethane-d4	188	70-130	S	%REC	1	7/27/2012 12:07:10 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	7/27/2012 12:07:10 AM
Surr: Dibromofluoromethane	88.6	70-130		%REC	1	7/27/2012 12:07:10 AM
Surr: Toluene-d8	99.4	70-130		%REC	1	7/27/2012 12:07:10 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	13000	500		mg/Kg	50	7/24/2012 1:53:49 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	7/24/2012 1:53:49 PM
Surr: DNOP	0	77.6-140	S	%REC	50	7/24/2012 1:53:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/30/2012 4:13:41 PM
Surr: BFB	129	84-116	S	%REC	50	7/30/2012 4:13:41 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.12	0.033		mg/Kg	1	8/2/2012 10:14:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Barium	600	5.0		mg/Kg	50	8/8/2012 9:31:51 AM
Beryllium	0.87	0.75		mg/Kg	5	8/5/2012 5:09:28 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:09:28 PM
Chromium	25	1.5		mg/Kg	5	8/5/2012 5:09:28 PM
Cobalt	5.4	1.5		mg/Kg	5	8/5/2012 5:09:28 PM
Iron	15000	500		mg/Kg	500	8/8/2012 9:34:20 AM
Lead	3.2	1.2		mg/Kg	5	8/5/2012 5:09:28 PM
Manganese	640	5.0		mg/Kg	50	8/8/2012 9:31:51 AM
Nickel	8.7	2.5		mg/Kg	5	8/5/2012 5:09:28 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:09:28 PM
Vanadium	27	12		mg/Kg	5	8/5/2012 5:09:28 PM
Zinc	37	12		mg/Kg	5	8/5/2012 5:09:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 4:41:47 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Fluorene	3.0	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
1-Methylnaphthalene	29	5.0		mg/Kg	5	8/1/2012 7:00:40 PM
2-Methylnaphthalene	38	5.0		mg/Kg	5	8/1/2012 7:00:40 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Naphthalene	7.1	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
Phenanthrene	9.8	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Pyrene	2.6	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/31/2012 4:41:47 PM
Surr: 2-Fluorobiphenyl	35.8	19-133		%REC	1	7/31/2012 4:41:47 PM
Surr: 2-Fluorophenol	47.7	20.2-108		%REC	1	7/31/2012 4:41:47 PM
Surr: 4-Terphenyl-d14	59.1	18.9-115		%REC	1	7/31/2012 4:41:47 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/31/2012 4:41:47 PM
Surr: Phenol-d5	56.3	19.8-115		%REC	1	7/31/2012 4:41:47 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	1.6	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Toluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Ethylbenzene	13	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,4-Trimethylbenzene	33	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3,5-Trimethylbenzene	7.8	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Naphthalene	17	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1-Methylnaphthalene	38	4.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Methylnaphthalene	60	4.0		mg/Kg	20	7/30/2012 3:17:50 PM
Acetone	ND	15		mg/Kg	20	7/30/2012 3:17:50 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromoform	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromomethane	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Butanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Carbon disulfide	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chloroethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chloromethane	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Hexanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Isopropylbenzene	2.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Isopropyltoluene	2.7	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
n-Butylbenzene	4.6	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
n-Propylbenzene	4.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
sec-Butylbenzene	2.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Styrene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,2-Trichloroethane	1.0	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Xylenes, Total	14	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	20	7/30/2012 3:17:50 PM
Surr: 4-Bromofluorobenzene	66.9	70-130	S	%REC	20	7/30/2012 3:17:50 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	20	7/30/2012 3:17:50 PM
Surr: Toluene-d8	101	70-130		%REC	20	7/30/2012 3:17:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	480	49		mg/Kg	5	7/24/2012 3:08:41 PM
Motor Oil Range Organics (MRO)	480	240		mg/Kg	5	7/24/2012 3:08:41 PM
Surr: DNOP	0	77.6-140	S	%REC	5	7/24/2012 3:08:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 4:42:30 PM
Surr: BFB	101	84-116		%REC	5	7/30/2012 4:42:30 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.062	0.033		mg/Kg	1	8/2/2012 10:16:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Barium	550	5.0		mg/Kg	50	8/8/2012 9:37:03 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:11:50 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:11:50 PM
Chromium	13	1.5		mg/Kg	5	8/5/2012 5:11:50 PM
Cobalt	4.4	1.5		mg/Kg	5	8/5/2012 5:11:50 PM
Iron	11000	500		mg/Kg	500	8/8/2012 9:39:29 AM
Lead	4.8	1.2		mg/Kg	5	8/5/2012 5:11:50 PM
Manganese	1100	5.0		mg/Kg	50	8/8/2012 9:37:03 AM
Nickel	6.9	2.5		mg/Kg	5	8/5/2012 5:11:50 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:11:50 PM
Vanadium	22	12		mg/Kg	5	8/5/2012 5:11:50 PM
Zinc	69	12		mg/Kg	5	8/5/2012 5:11:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 5:12:23 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM

Qualifiers:
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Surr: 2,4,6-Tribromophenol	92.8	20.1-121		%REC	1	7/31/2012 5:12:23 PM
Surr: 2-Fluorobiphenyl	84.4	19-133		%REC	1	7/31/2012 5:12:23 PM
Surr: 2-Fluorophenol	72.7	20.2-108		%REC	1	7/31/2012 5:12:23 PM
Surr: 4-Terphenyl-d14	98.2	18.9-115		%REC	1	7/31/2012 5:12:23 PM
Surr: Nitrobenzene-d5	83.0	20.8-123		%REC	1	7/31/2012 5:12:23 PM
Surr: Phenol-d5	77.1	19.8-115		%REC	1	7/31/2012 5:12:23 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Toluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Ethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Xylenes, Total	ND	2.72		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Methyl tert-butyl ether (MTBE)	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,4-Trimethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3,5-Trimethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichloroethane (EDC)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dibromoethane (EDB)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Naphthalene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1-Methylnaphthalene	ND	3.62		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Methylnaphthalene	ND	3.62		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Acetone	ND	27.2		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromodichloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromoform	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Butanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Carbon tetrachloride	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chloroform	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Chlorotoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Carbon disulfide	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Chlorotoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
cis-1,2-DCE	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
cis-1,3-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dibromo-3-chloropropane	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dibromochloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dibromomethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,4-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dichlorodifluoromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloroethene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichloropropane	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3-Dichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2,2-Dichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Hexachlorobutadiene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Isopropylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Isopropyltoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Methylene chloride	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
n-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Hexanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
n-Propylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
sec-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Styrene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Methyl-2-pentanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
tert-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,1,2-Tetrachloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,2,2-Tetrachloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Tetrachloroethene (PCE)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
trans-1,2-DCE	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
trans-1,3-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,3-Trichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,4-Trichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,1-Trichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,2-Trichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Trichloroethene (TCE)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Trichlorofluoromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,3-Trichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: Toluene-d8	101	70-130		%REC	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	4800	200		mg/Kg	20	7/24/2012 1:09:38 PM
Motor Oil Range Organics (MRO)	1100	1000		mg/Kg	20	7/24/2012 1:09:38 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 1:09:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/30/2012 5:11:15 PM
Surr: BFB	102	84-116		%REC	50	7/30/2012 5:11:15 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.052	0.033		mg/Kg	1	8/2/2012 10:17:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Barium	1000	5.0		mg/Kg	50	8/8/2012 12:12:41 PM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:14:15 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:14:15 PM
Chromium	15	1.5		mg/Kg	5	8/5/2012 5:14:15 PM
Cobalt	4.5	1.5		mg/Kg	5	8/5/2012 5:14:15 PM
Iron	15000	500		mg/Kg	500	8/8/2012 12:15:05 PM
Lead	5.1	1.2		mg/Kg	5	8/5/2012 5:14:15 PM
Manganese	560	5.0		mg/Kg	50	8/8/2012 12:12:41 PM
Nickel	7.1	2.5		mg/Kg	5	8/5/2012 5:14:15 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:14:15 PM
Vanadium	25	12		mg/Kg	5	8/5/2012 5:14:15 PM
Zinc	25	12		mg/Kg	5	8/5/2012 5:14:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 5:42:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
1-Methylnaphthalene	6.3	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Methylnaphthalene	6.1	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Naphthalene	1.4	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
Phenanthrene	1.7	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Surr: 2,4,6-Tribromophenol	89.7	20.1-121		%REC	1	7/31/2012 5:42:57 PM
Surr: 2-Fluorobiphenyl	78.4	19-133		%REC	1	7/31/2012 5:42:57 PM
Surr: 2-Fluorophenol	85.2	20.2-108		%REC	1	7/31/2012 5:42:57 PM
Surr: 4-Terphenyl-d14	102	18.9-115		%REC	1	7/31/2012 5:42:57 PM
Surr: Nitrobenzene-d5	94.4	20.8-123		%REC	1	7/31/2012 5:42:57 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/31/2012 5:42:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Toluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,4-Trimethylbenzene	3.6	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3,5-Trimethylbenzene	1.1	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Naphthalene	3.9	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1-Methylnaphthalene	12	4.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Methylnaphthalene	9.6	4.0		mg/Kg	20	7/24/2012 4:24:10 PM
Acetone	ND	15		mg/Kg	20	7/24/2012 4:24:10 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: 4-Bromofluorobenzene	83.2	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: Dibromofluoromethane	105	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: Toluene-d8	100	70-130		%REC	20	7/24/2012 4:24:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1400	200		mg/Kg	20	7/24/2012 1:31:41 PM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/24/2012 1:31:41 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 1:31:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 5:39:56 PM
Surr: BFB	101	84-116		%REC	10	7/30/2012 5:39:56 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.13	0.033		mg/Kg	1	8/2/2012 10:19:43 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Barium	670	5.0		mg/Kg	50	8/8/2012 9:42:14 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:18:23 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:18:23 PM
Chromium	14	1.5		mg/Kg	5	8/5/2012 5:18:23 PM
Cobalt	4.7	1.5		mg/Kg	5	8/5/2012 5:18:23 PM
Iron	12000	500		mg/Kg	500	8/8/2012 9:44:39 AM
Lead	4.1	1.2		mg/Kg	5	8/5/2012 5:18:23 PM
Manganese	540	5.0		mg/Kg	50	8/8/2012 9:42:14 AM
Nickel	8.2	2.5		mg/Kg	5	8/5/2012 5:18:23 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:18:23 PM
Vanadium	23	12		mg/Kg	5	8/5/2012 5:18:23 PM
Zinc	140	12		mg/Kg	5	8/5/2012 5:18:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 6:13:31 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Surr: 2,4,6-Tribromophenol	86.8	20.1-121		%REC	1	7/31/2012 6:13:31 PM
Surr: 2-Fluorobiphenyl	82.8	19-133		%REC	1	7/31/2012 6:13:31 PM
Surr: 2-Fluorophenol	76.1	20.2-108		%REC	1	7/31/2012 6:13:31 PM
Surr: 4-Terphenyl-d14	113	18.9-115		%REC	1	7/31/2012 6:13:31 PM
Surr: Nitrobenzene-d5	83.7	20.8-123		%REC	1	7/31/2012 6:13:31 PM
Surr: Phenol-d5	80.1	19.8-115		%REC	1	7/31/2012 6:13:31 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Toluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Ethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Xylenes, Total	ND	2.89		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,4-Trimethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3,5-Trimethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichloroethane (EDC)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dibromoethane (EDB)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Naphthalene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1-Methylnaphthalene	ND	3.85		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Methylnaphthalene	ND	3.85		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Acetone	ND	28.9		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromodichloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromoform	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Butanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Carbon tetrachloride	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chloroform	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Chlorotoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Carbon disulfide	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Chlorotoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
cis-1,2-DCE	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
cis-1,3-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dibromo-3-chloropropane	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dibromochloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dibromomethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,4-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dichlorodifluoromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloroethene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichloropropane	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3-Dichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2,2-Dichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Hexachlorobutadiene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Isopropylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Isopropyltoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Methylene chloride	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
n-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Hexanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
n-Propylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
sec-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Styrene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Methyl-2-pentanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
tert-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,1,2-Tetrachloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,2,2-Tetrachloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Tetrachloroethene (PCE)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
trans-1,2-DCE	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
trans-1,3-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,3-Trichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,4-Trichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,1-Trichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,2-Trichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Trichloroethene (TCE)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Trichlorofluoromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,3-Trichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Surr: 1,2-Dichloroethane-d4	122	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: Dibromofluoromethane	77.5	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: Toluene-d8	99.0	70-130		%REC	1	7/27/2012 12:34:55 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	10000	1000		mg/Kg	100	7/24/2012 2:46:24 PM
Motor Oil Range Organics (MRO)	ND	5100		mg/Kg	100	7/24/2012 2:46:24 PM
Surr: DNOP	0	77.6-140	S	%REC	100	7/24/2012 2:46:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1600	500		mg/Kg	100	7/30/2012 6:08:45 PM
Surr: BFB	142	84-116	S	%REC	100	7/30/2012 6:08:45 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.22	0.033		mg/Kg	1	8/2/2012 10:21:30 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Barium	650	5.0		mg/Kg	50	8/8/2012 9:47:22 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:20:48 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:20:48 PM
Chromium	8.9	1.5		mg/Kg	5	8/5/2012 5:20:48 PM
Cobalt	3.6	1.5		mg/Kg	5	8/5/2012 5:20:48 PM
Iron	7300	500		mg/Kg	500	8/8/2012 9:49:47 AM
Lead	1.3	1.2		mg/Kg	5	8/5/2012 5:20:48 PM
Manganese	360	5.0		mg/Kg	50	8/8/2012 9:47:22 AM
Nickel	5.6	2.5		mg/Kg	5	8/5/2012 5:20:48 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:20:48 PM
Vanadium	20	12		mg/Kg	5	8/5/2012 5:20:48 PM
Zinc	68	12		mg/Kg	5	8/5/2012 5:20:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 6:44:05 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
1-Methylnaphthalene	4.4	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Methylnaphthalene	6.7	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Naphthalene	1.7	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
Phenanthrene	2.8	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Surr: 2,4,6-Tribromophenol	32.3	20.1-121		%REC	1	7/31/2012 6:44:05 PM
Surr: 2-Fluorobiphenyl	41.9	19-133		%REC	1	7/31/2012 6:44:05 PM
Surr: 2-Fluorophenol	0	20.2-108	S	%REC	1	7/31/2012 6:44:05 PM
Surr: 4-Terphenyl-d14	64.2	18.9-115		%REC	1	7/31/2012 6:44:05 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/31/2012 6:44:05 PM
Surr: Phenol-d5	39.2	19.8-115		%REC	1	7/31/2012 6:44:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Ethylbenzene	23	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,4-Trimethylbenzene	44	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3,5-Trimethylbenzene	16	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Naphthalene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1-Methylnaphthalene	ND	10		mg/Kg	50	7/24/2012 5:20:42 PM
2-Methylnaphthalene	ND	10		mg/Kg	50	7/24/2012 5:20:42 PM
Acetone	ND	38		mg/Kg	50	7/24/2012 5:20:42 PM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM

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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Isopropylbenzene	6.6	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Isopropyltoluene	3.4	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
n-Butylbenzene	3.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
n-Propylbenzene	8.1	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
sec-Butylbenzene	3.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM

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- S Spike Recovery outside accepted recovery limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Xylenes, Total	120	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: 4-Bromofluorobenzene	84.8	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: Dibromofluoromethane	113	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: Toluene-d8	107	70-130		%REC	50	7/24/2012 5:20:42 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/24/2012 9:49:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/24/2012 9:49:16 AM
Surr: DNOP	107	77.6-140		%REC	1	7/24/2012 9:49:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 6:37:37 PM
Surr: BFB	104	84-116		%REC	1	7/30/2012 6:37:37 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:23:17 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Barium	940	5.0		mg/Kg	50	8/8/2012 10:03:14 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:31:38 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:31:38 PM
Chromium	9.4	1.5		mg/Kg	5	8/5/2012 5:31:38 PM
Cobalt	5.2	3.0		mg/Kg	10	8/8/2012 11:34:09 AM
Iron	13000	500		mg/Kg	500	8/8/2012 10:05:39 AM
Lead	2.7	1.2		mg/Kg	5	8/5/2012 5:31:38 PM
Manganese	650	5.0		mg/Kg	50	8/8/2012 10:03:14 AM
Nickel	6.9	2.5		mg/Kg	5	8/5/2012 5:31:38 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:31:38 PM
Vanadium	21	12		mg/Kg	5	8/5/2012 5:31:38 PM
Zinc	17	12		mg/Kg	5	8/5/2012 5:31:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Aniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Azobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Carbazole	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Chrysene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/31/2012 7:14:38 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Fluorene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Isophorone	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Naphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-027
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Phenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Pyridine	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Surr: 2,4,6-Tribromophenol	75.9	20.1-121		%REC	1	7/31/2012 7:14:38 PM
Surr: 2-Fluorobiphenyl	64.3	19-133		%REC	1	7/31/2012 7:14:38 PM
Surr: 2-Fluorophenol	58.4	20.2-108		%REC	1	7/31/2012 7:14:38 PM
Surr: 4-Terphenyl-d14	85.2	18.9-115		%REC	1	7/31/2012 7:14:38 PM
Surr: Nitrobenzene-d5	61.7	20.8-123		%REC	1	7/31/2012 7:14:38 PM
Surr: Phenol-d5	63.1	19.8-115		%REC	1	7/31/2012 7:14:38 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Toluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Ethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Xylenes, Total	ND	3.44		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Methyl tert-butyl ether (MTBE)	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,4-Trimethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3,5-Trimethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichloroethane (EDC)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dibromoethane (EDB)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Naphthalene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1-Methylnaphthalene	ND	4.59		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Methylnaphthalene	ND	4.59		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Acetone	ND	34.4		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromodichloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromoform	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Butanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Carbon tetrachloride	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chloroform	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Chlorotoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Carbon disulfide	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Chlorotoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
cis-1,2-DCE	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
cis-1,3-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dibromo-3-chloropropane	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dibromochloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dibromomethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,4-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dichlorodifluoromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloroethene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichloropropane	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3-Dichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2,2-Dichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Hexachlorobutadiene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Isopropylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Isopropyltoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Methylene chloride	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
n-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Hexanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
n-Propylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
sec-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Styrene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Methyl-2-pentanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
tert-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,1,2-Tetrachloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,2,2-Tetrachloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Tetrachloroethene (PCE)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
trans-1,2-DCE	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
trans-1,3-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,3-Trichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,4-Trichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,1-Trichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,2-Trichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Trichloroethene (TCE)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Trichlorofluoromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,3-Trichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Surr: 1,2-Dichloroethane-d4	136	70-130	S	%REC	1	7/27/2012 1:02:42 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	7/27/2012 1:02:42 AM
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	7/27/2012 1:02:42 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	7/27/2012 1:02:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/24/2012 10:36:19 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/24/2012 10:36:19 AM
Surr: DNOP	111	77.6-140		%REC	1	7/24/2012 10:36:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 7:06:26 PM
Surr: BFB	101	84-116		%REC	1	7/30/2012 7:06:26 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:25:06 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Barium	890	5.0		mg/Kg	50	8/8/2012 10:08:22 AM
Beryllium	0.76	0.75		mg/Kg	5	8/5/2012 5:34:01 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:34:01 PM
Chromium	8.7	1.5		mg/Kg	5	8/5/2012 5:34:01 PM
Cobalt	7.0	1.5		mg/Kg	5	8/5/2012 5:34:01 PM
Iron	14000	500		mg/Kg	500	8/8/2012 10:10:49 AM
Lead	3.0	1.2		mg/Kg	5	8/5/2012 5:34:01 PM
Manganese	910	5.0		mg/Kg	50	8/8/2012 10:08:22 AM
Nickel	8.0	2.5		mg/Kg	5	8/5/2012 5:34:01 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:34:01 PM
Vanadium	24	12		mg/Kg	5	8/5/2012 5:34:01 PM
Zinc	22	12		mg/Kg	5	8/5/2012 5:34:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Aniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Azobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Carbazole	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Chrysene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/31/2012 7:45:05 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Fluorene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Isophorone	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Naphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Phenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Pyridine	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Surr: 2,4,6-Tribromophenol	47.4	20.1-121		%REC	1	7/31/2012 7:45:05 PM
Surr: 2-Fluorobiphenyl	45.2	19-133		%REC	1	7/31/2012 7:45:05 PM
Surr: 2-Fluorophenol	40.4	20.2-108		%REC	1	7/31/2012 7:45:05 PM
Surr: 4-Terphenyl-d14	53.2	18.9-115		%REC	1	7/31/2012 7:45:05 PM
Surr: Nitrobenzene-d5	46.0	20.8-123		%REC	1	7/31/2012 7:45:05 PM
Surr: Phenol-d5	43.6	19.8-115		%REC	1	7/31/2012 7:45:05 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Toluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Ethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Xylenes, Total	ND	2.93		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Methyl tert-butyl ether (MTBE)	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,4-Trimethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3,5-Trimethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichloroethane (EDC)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dibromoethane (EDB)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Naphthalene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1-Methylnaphthalene	ND	3.91		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Methylnaphthalene	ND	3.91		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Acetone	ND	29.3		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromodichloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromoform	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Butanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Carbon tetrachloride	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chloroform	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Carbon disulfide	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
cis-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
cis-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dibromo-3-chloropropane	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dibromochloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dibromomethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,4-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dichlorodifluoromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloroethene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichloropropane	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2,2-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Hexachlorobutadiene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Isopropylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Isopropyltoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Methylene chloride	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
n-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Hexanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
n-Propylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
sec-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Styrene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Methyl-2-pentanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
tert-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,1,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,2,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Tetrachloroethene (PCE)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
trans-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
trans-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,3-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,4-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,1-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,2-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Trichloroethene (TCE)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Trichlorofluoromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,3-Trichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Surr: 1,2-Dichloroethane-d4	127	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: Toluene-d8	98.4	70-130		%REC	1	7/27/2012 1:30:26 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	6.5	1.0		mg/L	1	7/23/2012 7:51:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 7:51:04 PM
Surr: DNOP	132	79.5-166		%REC	1	7/23/2012 7:51:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	7/25/2012 1:33:25 PM
Surr: BFB	98.5	69.8-119		%REC	5	7/25/2012 1:33:25 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.18	0.0020		mg/L	1	8/15/2012 11:54:12 AM
Beryllium	ND	0.0020		mg/L	1	8/10/2012 12:09:10 PM
Cadmium	ND	0.0020		mg/L	1	8/10/2012 12:09:10 PM
Chromium	0.0077	0.0060		mg/L	1	8/10/2012 12:09:10 PM
Cobalt	0.029	0.0060		mg/L	1	8/10/2012 12:09:10 PM
Iron	0.14	0.020		mg/L	1	8/10/2012 12:09:10 PM
Manganese	0.54	0.0020	*	mg/L	1	8/10/2012 12:09:10 PM
Nickel	0.18	0.010	*	mg/L	1	8/10/2012 12:09:10 PM
Silver	ND	0.0050		mg/L	1	8/10/2012 12:09:10 PM
Vanadium	ND	0.050		mg/L	1	8/10/2012 12:09:10 PM
Zinc	0.13	0.010		mg/L	1	8/10/2012 12:09:10 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.54	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Beryllium	0.0021	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Chromium	0.075	0.0060		mg/L	1	8/7/2012 10:07:08 AM
Cobalt	0.038	0.0060		mg/L	1	8/7/2012 10:07:08 AM
Iron	31	1.0	*	mg/L	50	8/7/2012 4:33:49 PM
Manganese	1.3	0.020	*	mg/L	10	8/7/2012 10:12:15 AM
Nickel	0.20	0.010	*	mg/L	1	8/7/2012 10:07:08 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 10:07:08 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 10:07:08 AM
Zinc	0.32	0.010		mg/L	1	8/7/2012 10:07:08 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Antimony	ND	0.0050		mg/L	5	7/26/2012 7:58:22 PM
Arsenic	0.011	0.0050	*	mg/L	5	7/26/2012 7:58:22 PM
Lead	ND	0.0050		mg/L	5	7/26/2012 7:58:22 PM
Selenium	0.023	0.0050		mg/L	5	7/26/2012 7:58:22 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	8/13/2012 5:44:15 PM
Arsenic	0.012	0.0025	*	mg/L	2.5	8/13/2012 5:44:15 PM
Lead	0.044	0.0025	*	mg/L	2.5	8/13/2012 5:44:15 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: METALS						Analyst: **SNV**
Selenium	0.014	0.0025		mg/L	2.5	8/13/2012 5:44:15 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:11:41 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Aniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Carbazole	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Chrysene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Di-n-butyl phthalate	20	10		µg/L	1	7/25/2012 1:45:30 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dimethylphenol	27	10		µg/L	1	7/25/2012 1:45:30 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Fluorene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Isophorone	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Phenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pyridine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Surr: 2,4,6-Tribromophenol	69.8	44.2-126		%REC	1	7/25/2012 1:45:30 PM
Surr: 2-Fluorobiphenyl	66.1	37-114		%REC	1	7/25/2012 1:45:30 PM
Surr: 2-Fluorophenol	45.9	23.4-98		%REC	1	7/25/2012 1:45:30 PM
Surr: 4-Terphenyl-d14	77.8	41.3-116		%REC	1	7/25/2012 1:45:30 PM
Surr: Nitrobenzene-d5	59.6	39.5-118		%REC	1	7/25/2012 1:45:30 PM
Surr: Phenol-d5	42.2	20.9-95.9		%REC	1	7/25/2012 1:45:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**

Qualifiers:

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E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	67	10		µg/L	10	7/27/2012 4:33:05 PM
Toluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Ethylbenzene	49	10		µg/L	10	7/27/2012 4:33:05 PM
Methyl tert-butyl ether (MTBE)	310	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,4-Trimethylbenzene	85	10		µg/L	10	7/27/2012 4:33:05 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Naphthalene	42	20		µg/L	10	7/27/2012 4:33:05 PM
1-Methylnaphthalene	61	40		µg/L	10	7/27/2012 4:33:05 PM
2-Methylnaphthalene	ND	40		µg/L	10	7/27/2012 4:33:05 PM
Acetone	420	100		µg/L	10	7/27/2012 4:33:05 PM
Bromobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromodichloromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromoform	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromomethane	ND	30		µg/L	10	7/27/2012 4:33:05 PM
2-Butanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Carbon disulfide	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Carbon Tetrachloride	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chloroethane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Chloroform	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chloromethane	ND	30		µg/L	10	7/27/2012 4:33:05 PM
2-Chlorotoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Chlorotoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
cis-1,2-DCE	ND	10		µg/L	10	7/27/2012 4:33:05 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Dibromochloromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Dibromomethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Dichlorodifluoromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloroethene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichloropropane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,3-Dichloropropane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
2,2-Dichloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Hexachlorobutadiene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
2-Hexanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Isopropyltoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Methylene Chloride	ND	30		µg/L	10	7/27/2012 4:33:05 PM
n-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
n-Propylbenzene	10	10		µg/L	10	7/27/2012 4:33:05 PM
sec-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Styrene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
tert-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
trans-1,2-DCE	ND	10		µg/L	10	7/27/2012 4:33:05 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Trichloroethene (TCE)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Trichlorofluoromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Vinyl chloride	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Xylenes, Total	45	15		µg/L	10	7/27/2012 4:33:05 PM
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: Dibromofluoromethane	101	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: Toluene-d8	104	70-130		%REC	10	7/27/2012 4:33:05 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-030 **Matrix:** AQUEOUS

Client Sample ID: FB071912
Collection Date: 7/19/2012 6:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 8:16:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 8:16:25 PM
Surr: DNOP	130	79.5-166		%REC	1	7/23/2012 8:16:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 2:08:44 AM
Surr: BFB	97.6	69.8-119		%REC	1	7/25/2012 2:08:44 AM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Beryllium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Chromium	ND	0.0060		mg/L	1	8/7/2012 9:45:25 AM
Cobalt	ND	0.0060		mg/L	1	8/7/2012 9:45:25 AM
Iron	ND	0.020		mg/L	1	8/7/2012 9:45:25 AM
Manganese	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Nickel	ND	0.010		mg/L	1	8/7/2012 9:45:25 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 9:45:25 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 9:45:25 AM
Zinc	ND	0.010		mg/L	1	8/7/2012 9:45:25 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Arsenic	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Lead	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Selenium	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:13:29 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Aniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 2:15:34 PM

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-030 **Matrix:** AQUEOUS

Client Sample ID: FB071912
Collection Date: 7/19/2012 6:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Carbazole	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Chrysene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Fluorene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Isophorone	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-030 **Matrix:** AQUEOUS

Client Sample ID: FB071912
Collection Date: 7/19/2012 6:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Phenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pyridine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Surr: 2,4,6-Tribromophenol	98.6	44.2-126		%REC	1	7/25/2012 2:15:34 PM
Surr: 2-Fluorobiphenyl	78.3	37-114		%REC	1	7/25/2012 2:15:34 PM
Surr: 2-Fluorophenol	61.4	23.4-98		%REC	1	7/25/2012 2:15:34 PM
Surr: 4-Terphenyl-d14	93.0	41.3-116		%REC	1	7/25/2012 2:15:34 PM
Surr: Nitrobenzene-d5	74.3	39.5-118		%REC	1	7/25/2012 2:15:34 PM
Surr: Phenol-d5	45.8	20.9-95.9		%REC	1	7/25/2012 2:15:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:19:04 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:19:04 AM
Acetone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 2:19:04 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-030 **Matrix:** AQUEOUS

Client Sample ID: FB071912
Collection Date: 7/19/2012 6:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-030 **Matrix:** AQUEOUS

Client Sample ID: FB071912
Collection Date: 7/19/2012 6:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 2:19:04 AM
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: Toluene-d8	105	70-130		%REC	1	7/25/2012 2:19:04 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-031 **Matrix:** AQUEOUS

Client Sample ID: EB071912
Collection Date: 7/19/2012 6:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 8:41:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 8:41:47 PM
Surr: DNOP	128	79.5-166		%REC	1	7/23/2012 8:41:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 2:38:55 AM
Surr: BFB	88.8	69.8-119		%REC	1	7/25/2012 2:38:55 AM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.0062	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Beryllium	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Chromium	ND	0.0060		mg/L	1	8/7/2012 9:52:35 AM
Cobalt	ND	0.0060		mg/L	1	8/7/2012 9:52:35 AM
Iron	0.14	0.020		mg/L	1	8/7/2012 9:52:35 AM
Manganese	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Nickel	ND	0.010		mg/L	1	8/7/2012 9:52:35 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 9:52:35 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 9:52:35 AM
Zinc	ND	0.010		mg/L	1	8/7/2012 9:52:35 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Arsenic	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Lead	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Selenium	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:15:18 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Aniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 2:45:43 PM

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-031 **Matrix:** AQUEOUS

Client Sample ID: EB071912
Collection Date: 7/19/2012 6:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Carbazole	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Chrysene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Fluorene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Isophorone	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM

Qualifiers:

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-031 **Matrix:** AQUEOUS

Client Sample ID: EB071912
Collection Date: 7/19/2012 6:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Phenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pyridine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Surr: 2,4,6-Tribromophenol	61.9	44.2-126		%REC	1	7/25/2012 2:45:43 PM
Surr: 2-Fluorobiphenyl	84.9	37-114		%REC	1	7/25/2012 2:45:43 PM
Surr: 2-Fluorophenol	44.2	23.4-98		%REC	1	7/25/2012 2:45:43 PM
Surr: 4-Terphenyl-d14	81.7	41.3-116		%REC	1	7/25/2012 2:45:43 PM
Surr: Nitrobenzene-d5	85.3	39.5-118		%REC	1	7/25/2012 2:45:43 PM
Surr: Phenol-d5	44.5	20.9-95.9		%REC	1	7/25/2012 2:45:43 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:47:19 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:47:19 AM
Acetone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 2:47:19 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-031 **Matrix:** AQUEOUS

Client Sample ID: EB071912
Collection Date: 7/19/2012 6:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-031 **Matrix:** AQUEOUS

Client Sample ID: EB071912
Collection Date: 7/19/2012 6:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 2:47:19 AM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: Dibromofluoromethane	102	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: Toluene-d8	106	70-130		%REC	1	7/25/2012 2:47:19 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-032
Matrix: TRIP BLANK
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 3:15:33 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 3:15:33 AM
Acetone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-032
Matrix: TRIP BLANK
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 3:15:33 AM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: Dibromofluoromethane	105	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: Toluene-d8	104	70-130		%REC	1	7/25/2012 3:15:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MEOH BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-033
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 7:35:12 PM
Surr: BFB	99.3	84-116		%REC	1	7/30/2012 7:35:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Toluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Naphthalene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:43:17 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:43:17 PM
Acetone	ND	0.75		mg/Kg	1	7/30/2012 4:43:17 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromoform	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromomethane	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
2-Butanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Chloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Chloroform	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Chloromethane	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-033

Client Sample ID: MEOH BLANK
Collection Date:
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Styrene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Vinyl chloride	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: Toluene-d8	104	70-130		%REC	1	7/30/2012 4:43:17 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-034
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/2/2012 2:26:44 AM
Surr: BFB	98.7	84-116		%REC	1	8/2/2012 2:26:44 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Toluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Naphthalene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:14:49 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:14:49 PM
Acetone	ND	0.75		mg/Kg	1	7/30/2012 4:14:49 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromoform	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromomethane	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
2-Butanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Chloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Chloroform	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Chloromethane	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-034
Client Sample ID: MeOH Blank
Collection Date:
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Styrene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Vinyl chloride	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: Dibromofluoromethane	92.1	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	7/30/2012 4:14:49 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

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

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-001 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-001D / SWMU 14-10 (0-0.5) **Sampling Time** 11:00 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-002 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-002D / SWMU 14-10 (1.5-2.0) **Sampling Time** 11:05 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-003 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-003D / SWMU 14-8 (0-0.5) **Sampling Time** 11:27 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-004	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-004D / SWMU 14-8 (1.5-2.0)			**Sampling Time**	11:40 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-005	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-005D / SWMU 14-8 (1.5-2.0) DUP			**Sampling Time**	11:40 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-006	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-006D / SWMU 14-12 (0-0.5)			**Sampling Time**	12:05 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-007 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-007D / SWMU 14-12 (1.5-2.0) **Sampling Time** 12:12 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-008 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-008D / SWMU 14-13 (0-0.5) **Sampling Time** 12:36 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-009 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-009D / SWMU 14-13 (1.5-2.0) **Sampling Time** 12:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-010 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-010D / SWMU 14-14 (0-0.5) **Sampling Time** 1:07 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-011 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-011D / SWMU 14-14 (1.5-2.0) **Sampling Time** 1:12 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number 120725001-012 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-012D / SWMU 14-11 (0-0.5) **Sampling Time** 1:33 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-013 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-013D / SWMU 14-11 (1.5-2.0) **Sampling Time** 1:38 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-014 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-014D / SWMU 14-18 (0-0.5) **Sampling Time** 2:08 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.22	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-015 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-015D / SWMU 14-18 (1.5-2.0) **Sampling Time** 2:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.50	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-016 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-016D / SWMU 14-5 (0-0.5) **Sampling Time** 3:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.600	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-017 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-017D / SWMU 14-5 (0-0.5) DUP **Sampling Time** 3:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-018 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-018D / SWMU 14-5 (1.5-2.0) **Sampling Time** 3:06 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-019 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-019D / SWMU 14-19 (0-0.5) **Sampling Time** 3:26 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-020 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-020D / SWMU 14-19 (1.5-2.0) **Sampling Time** 3:33 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-021 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-021D / SWMU 14-17 (0-0.5) **Sampling Time** 4:11 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.33	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-022 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-022D / SWMU 14-17 (1.5-2.0) **Sampling Time** 4:18 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-023 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-023D / SWMU 14-16 (0-0.5) **Sampling Time** 4:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-024 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-024D / SWMU 14-16 (1.5-2.0) **Sampling Time** 4:51 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-025 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-025D / SWMU 14-15 (0-0.5) **Sampling Time** 5:14 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-026 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-026D / SWMU 14-15 (1.5-2.0) **Sampling Time** 5:19 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-027 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-027D / SWMU 14-20 (0-0.5) **Sampling Time** 5:50 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-028	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-028D / SWMU 14-20 (0-0.5) DUP			**Sampling Time**	5:50 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-029	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-029F / SWMU 14-2 GW			**Sampling Time**	10:00 AM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.216	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-030	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-030F / FB071912			**Sampling Time**	6:00 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/1/2012	JTT	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-031	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-031F / EB071912			**Sampling Time**	6:15 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2992** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **2992** RunNo: **4442**
Prep Date: **7/24/2012** Analysis Date: **7/26/2012** SeqNo: **124085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-2992** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **2992** RunNo: **4442**
Prep Date: **7/24/2012** Analysis Date: **7/26/2012** SeqNo: **124086** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Zinc	0.48	0.010	0.5000	0	95.8	85	115			

Sample ID **MB-2992** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **2992** RunNo: **4694**
Prep Date: **7/24/2012** Analysis Date: **8/7/2012** SeqNo: **131946** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-2992** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **2992** RunNo: **4694**
Prep Date: **7/24/2012** Analysis Date: **8/7/2012** SeqNo: **131947** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Beryllium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS-2992** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **2992** RunNo: **4694**

Prep Date: **7/24/2012** Analysis Date: **8/7/2012** SeqNo: **131947** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Nickel	0.47	0.010	0.5000	0	93.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.47	0.010	0.5000	0	93.9	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131952** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
›mium	ND	0.0060								
›balt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131953** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Beryllium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0.0005300	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Nickel	0.46	0.010	0.5000	0.001850	92.5	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.47	0.010	0.5000	0	93.2	85	115			

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207605-004AMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.09631	106	70	130			
Beryllium	0.55	0.0020	0.5000	0	110	70	130			
Cadmium	0.55	0.0020	0.5000	0	110	70	130			
Chromium	0.53	0.0060	0.5000	0	105	70	130			
Nickel	0.49	0.010	0.5000	0	97.7	70	130			
Zinc	0.51	0.010	0.5000	0.006940	100	70	130			

Sample ID **1207605-004AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.09631	103	70	130	2.89	20	
Beryllium	0.53	0.0020	0.5000	0	105	70	130	4.73	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	4.00	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	2.90	20	
Nickel	0.48	0.010	0.5000	0	95.1	70	130	2.65	20	
Zinc	0.50	0.010	0.5000	0.006940	97.9	70	130	2.60	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4878** RunNo: **4878**

Prep Date: Analysis Date: **8/15/2012** SeqNo: **137839** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R4878** RunNo: **4878**

Prep Date: Analysis Date: **8/15/2012** SeqNo: **137840** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4793**	RunNo: **4793**
Prep Date:	Analysis Date: **8/10/2012**	SeqNo: **135124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R4793**	RunNo: **4793**
Prep Date:	Analysis Date: **8/10/2012**	SeqNo: **135125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.52	0.0020	0.5000	0	103	85	115			
mium	0.50	0.0020	0.5000	0	99.5	85	115			
Chromium	0.50	0.0060	0.5000	0.001100	99.1	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.5	85	115			
Iron	0.49	0.020	0.5000	0.006750	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Nickel	0.47	0.010	0.5000	0	94.1	85	115			
Silver	0.10	0.0050	0.1000	0	99.8	85	115			
Vanadium	0.52	0.050	0.5000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0.002400	97.3	85	115			

Sample ID **1206C11-001IMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4793**	RunNo: **4793**
Prep Date:	Analysis Date: **8/10/2012**	SeqNo: **135154** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0.003510	99.1	70	130			

Sample ID **1206C11-001IMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4793**	RunNo: **4793**
Prep Date:	Analysis Date: **8/10/2012**	SeqNo: **135155** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0.003510	97.9	70	130	1.15	20	

Qualifiers:

- ‹ Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137838** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			

Sample ID **1207385-012AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.02608	103	70	130			

Sample ID **1207385-012AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.02608	102	70	130	0.846	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.9	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.028	0.0010	0.02500	0	110	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1207221-005AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R4467** RunNo: **4467**
ep Date: Analysis Date: **7/26/2012** SeqNo: **124875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0.0004564	98.5	70	130			

Sample ID **1207238-010AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124890** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0.0005791	96.5	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.5	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2992**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **2992**	RunNo: **4529**
Prep Date: **7/24/2012**	Analysis Date: **7/30/2012**	SeqNo: **127013** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								

Sample ID **MB-2992**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **2992**	RunNo: **4564**
Prep Date: **7/24/2012**	Analysis Date: **7/31/2012**	SeqNo: **128124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207285-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124796** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0004413	99.7	70	130			
Selenium	0.034	0.0010	0.02500	0.008055	106	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124807** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.028	0.0010	0.02500	0	111	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124809** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
nony	ND	0.0010								
enic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1207385-012AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124832** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0005215	101	70	130			
Lead	0.024	0.0010	0.02500	0	97.4	70	130			
Selenium	0.026	0.0010	0.02500	0	103	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R4467** RunNo: **4467**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **124858** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.9	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.028	0.0010	0.02500	0	110	85	115			

Qualifiers:

- : Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124859** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.5	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124861** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124862** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-2979**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2979**	RunNo: **4384**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **122185** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2979**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2979**	RunNo: **4384**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **122186** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.7	80	120			

Sample ID **1207546-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2979**	RunNo: **4384**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **122188** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	84.4	75	125			

Sample ID **1207546-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2979**	RunNo: **4384**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **122191** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	79.7	75	125	5.66	20	

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2946** SampType: **MBLK** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS** Batch ID: **2946** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	77.6	140			

Sample ID **MB-2947** SampType: **MBLK** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS** Batch ID: **2947** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID **LCS-2946** SampType: **LCS** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **2946** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	52.6	130			
Surr: DNOP	4.5		5.000		90.5	77.6	140			

Sample ID **LCS-2947** SampType: **LCS** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **2947** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120624** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.6	52.6	130			
Surr: DNOP	4.4		5.000		87.1	77.6	140			

Sample ID **1207838-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC** Batch ID: **2946** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.7	48.73	0	78.1	57.2	146			
Surr: DNOP	4.4		4.873		89.6	77.6	140			

Sample ID **1207838-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC** Batch ID: **2946** RunNo: **4221**
Prep Date: **7/21/2012** Analysis Date: **7/22/2012** SeqNo: **120627** Units: **mg/Kg**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207838-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **2946**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120627** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.9	49.55	0	71.7	57.2	146	6.92	24.5	
Surr: DNOP	4.4		4.955		88.1	77.6	140	0	0	

Sample ID **MB-2983**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **2983**	RunNo: **4371**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **121772** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	77.6	140			

Sample ID **LCS-2983**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **2983**	RunNo: **4371**
Prep Date: **7/23/2012**	Analysis Date: **7/24/2012**	SeqNo: **121845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.5	52.6	130			
Surr: DNOP	4.0		5.000		79.7	77.6	140			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2965**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		123	79.5	166			

Sample ID **LCS-2965**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121392** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.0	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-2965**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.931	23	
Surr: DNOP	0.53		0.5000		106	79.5	166	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-3010**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.6	84	116			

Sample ID **LCS-3010**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124695** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	85	115			
Surr: BFB	1100		1000		108	84	116			

Sample ID **1207A15-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124697** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.61	3.490	84.9	70	130			
Surr: BFB	1100		944.3		112	84	116			

Sample ID **1207A15-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124698** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.58	3.490	83.3	70	130	1.63	22.1	
Surr: BFB	1100		943.4		113	84	116	0	0	

Sample ID **MB-3054**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3054**	RunNo: **4572**
Prep Date: **7/26/2012**	Analysis Date: **7/30/2012**	SeqNo: **128276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.8	84	116			

Sample ID **LCS-3054**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3054**	RunNo: **4572**
Prep Date: **7/26/2012**	Analysis Date: **7/30/2012**	SeqNo: **128277** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.5	85	115			
Surr: BFB	1000		1000		102	84	116			

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207B18-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **3054** RunNo: **4572**
Prep Date: **7/26/2012** Analysis Date: **7/30/2012** SeqNo: **128295** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	4.9	24.58	20.18	85.5	70	130			
Surr: BFB	1100		983.3		110	84	116			

Sample ID **1207B18-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **3054** RunNo: **4572**
Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **128296** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	43	4.9	24.44	20.18	91.6	70	130	3.25	22.1	
Surr: BFB	1100		977.5		111	84	116	0	0	

Sample ID **MB-3071** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS** Batch ID: **3071** RunNo: **4513**
Prep Date: **7/27/2012** Analysis Date: **7/30/2012** SeqNo: **128374** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1200		1000		121	84	116			S

Sample ID **LCS-3071** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS** Batch ID: **3071** RunNo: **4513**
Prep Date: **7/27/2012** Analysis Date: **7/30/2012** SeqNo: **128375** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	85	115			
Surr: BFB	1000		1000		102	84	116			

Sample ID **1207C50-001A MS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **3071** RunNo: **4513**
Prep Date: Analysis Date: **7/30/2012** SeqNo: **128377** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	2.487	91.3	70	130			
Surr: BFB	900		1000		90.5	84	116			

Sample ID **1207C50-001A MSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **3071** RunNo: **4513**
Prep Date: Analysis Date: **7/30/2012** SeqNo: **128378** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	2.487	92.2	70	130	0.826	22.1	
Surr: BFB	1100		1000		114	84	116	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207B91-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3071** RunNo: **4576**

Prep Date: **7/27/2012** Analysis Date: **8/1/2012** SeqNo: **128410** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	12	24.20	0	74.6	70	130			
Surr: BFB	5500		4840		115	84	116			

Sample ID **1207B91-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3071** RunNo: **4576**

Prep Date: **7/27/2012** Analysis Date: **8/1/2012** SeqNo: **128411** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	11	22.83	0	78.8	70	130	0.351	22.1	
Surr: BFB	4700		4566		103	84	116	0	0	

Sample ID **MB-3118** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **PBS** Batch ID: **3118** RunNo: **4574**

Prep Date: **7/31/2012** Analysis Date: **8/1/2012** SeqNo: **129323** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.4	84	116			

Sample ID **LCS-3118** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **LCSS** Batch ID: **3118** RunNo: **4574**

Prep Date: **7/31/2012** Analysis Date: **8/1/2012** SeqNo: **129324** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	85	115			
Surr: BFB	1000		1000		101	84	116			

Sample ID **1207D19-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3118** RunNo: **4574**

Prep Date: **7/31/2012** Analysis Date: **8/1/2012** SeqNo: **129332** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37	4.7	23.74	14.95	93.6	70	130			
Surr: BFB	1500		949.7		160	84	116			S

Sample ID **1207D19-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3118** RunNo: **4574**

Prep Date: **7/31/2012** Analysis Date: **8/1/2012** SeqNo: **129333** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37	4.8	24.15	14.95	91.3	70	130	0.497	22.1	
Surr: BFB	1600		966.2		167	84	116	0	0	S

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **1207819-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.25	2.500	2.307	94.7	75.4	121			
Surr: BFB	100		100.0		103	69.8	119			

Sample ID **1207819-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	2.307	71.5	75.4	121	13.2	10.5	SR
Surr: BFB	96		100.0		96.5	69.8	119	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.4	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.0	75.9	119			
Surr: BFB	18		20.00		90.7	69.8	119			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
›on disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

- ‹ Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	1.1	0.050	1.000	0	107	80	120			
Chlorobenzene	1.0	0.050	1.000	0	102	70	130			
1,1-Dichloroethene	0.99	0.050	1.000	0	99.0	63.1	148			
Trichloroethene (TCE)	0.89	0.050	1.000	0	88.8	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.60		0.5000		121	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSS** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		89.3	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **1207900-002b ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121269** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6439	0.006767	108	81.3	119			
Toluene	0.65	0.050	0.6439	0	100	75	121			
Chlorobenzene	0.64	0.050	0.6439	0	99.6	78.5	120			
1,1-Dichloroethene	0.68	0.050	0.6439	0	106	75.3	115			
Trichloroethene (TCE)	0.61	0.050	0.6439	0	94.7	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3220		97.9	70	130			
Surr: Dibromofluoromethane	0.32		0.3220		98.8	70	130			
Surr: Toluene-d8	0.32		0.3220		101	70	130			

Sample ID **1207900-002b msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121270** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6439	0.006767	103	81.3	119	4.25	15.7	
Toluene	0.63	0.050	0.6439	0	98.3	75	121	2.14	16.2	
Chlorobenzene	0.65	0.050	0.6439	0	101	78.5	120	1.27	14.9	
1,1-Dichloroethene	0.60	0.050	0.6439	0	93.7	75.3	115	12.0	31.8	
Trichloroethene (TCE)	0.55	0.050	0.6439	0	85.7	67.8	119	10.0	16.5	
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3220		97.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3220		92.3	70	130	0	0	
Surr: Toluene-d8	0.32		0.3220		100	70	130	0	0	

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

Client ID: **PBS** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

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

Client ID: **PBS** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

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

Client ID: **LCSS** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70.7	123			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	0.93	0.050	1.000	0	92.5	63.1	148			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207940-007b ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-12 (1.5-2.** Batch ID: **R4379** RunNo: **4379**
Prep Date: Analysis Date: **7/24/2012** SeqNo: **122016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.5	42.92	2.856	95.9	81.3	119			
Toluene	56	2.5	42.92	14.08	97.1	75	121			
Chlorobenzene	42	2.5	42.92	0	97.1	78.5	120			
1,1-Dichloroethene	39	2.5	42.92	0	91.6	75.3	115			
Trichloroethene (TCE)	37	2.5	42.92	0	85.1	67.8	119			
Surr: 1,2-Dichloroethane-d4	20		21.46		92.0	70	130			
Surr: 4-Bromofluorobenzene	20		21.46		93.8	70	130			
Surr: Dibromofluoromethane	22		21.46		101	70	130			
Surr: Toluene-d8	22		21.46		102	70	130			

Sample ID **1207940-007b msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-12 (1.5-2.** Batch ID: **R4379** RunNo: **4379**
Prep Date: Analysis Date: **7/24/2012** SeqNo: **122017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	43	2.5	42.92	2.856	93.9	81.3	119	1.96	15.7	
Toluene	54	2.5	42.92	14.08	92.6	75	121	3.49	16.2	
Chlorobenzene	42	2.5	42.92	0	97.0	78.5	120	0.0484	14.9	
1,1-Dichloroethene	37	2.5	42.92	0	85.4	75.3	115	7.02	31.8	
Trichloroethene (TCE)	36	2.5	42.92	0	84.2	67.8	119	1.08	16.5	
Surr: 1,2-Dichloroethane-d4	20		21.46		94.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		21.46		92.2	70	130	0	0	
Surr: Dibromofluoromethane	23		21.46		106	70	130	0	0	
Surr: Toluene-d8	21		21.46		99.9	70	130	0	0	

Sample ID **mb-3010** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS** Batch ID: **3010** RunNo: **4468**
Prep Date: **7/24/2012** Analysis Date: **7/25/2012** SeqNo: **125366** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **lcs-3010** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS** Batch ID: **3010** RunNo: **4468**
Prep Date: **7/24/2012** Analysis Date: **7/25/2012** SeqNo: **125367** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-3010**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **3010**	RunNo: **4468**
Prep Date: **7/24/2012**	Analysis Date: **7/25/2012**	SeqNo: **125367** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID **mb-3010**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **3010**	RunNo: **4498**
Prep Date: **7/24/2012**	Analysis Date: **7/27/2012**	SeqNo: **126123** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.7	70	130			
Surr: 4-Bromofluorobenzene	0.59		0.5000		118	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								

Qualifiers:

X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4537**	RunNo: **4537**	
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127461**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.6	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		89.0	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127466** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.1	70.7	123			
Toluene	0.98	0.050	1.000	0	98.4	80	120			
Chlorobenzene	0.99	0.050	1.000	0	99.3	70	130			
1,1-Dichloroethene	0.83	0.050	1.000	0	83.3	63.1	148			
Trichloroethene (TCE)	0.79	0.050	1.000	0	79.3	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.3	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		112	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.9	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID **mb-3118**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **3118**	RunNo: **4594**
Prep Date: **7/31/2012**	Analysis Date: **8/1/2012**	SeqNo: **129277** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		77.6	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.5000		73.3	70	130			
Surr: Dibromofluoromethane	0.37		0.5000		73.3	70	130			
Surr: Toluene-d8	0.40		0.5000		80.6	70	130			

Sample ID **lcs-3118**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **3118**	RunNo: **4594**
Prep Date: **7/31/2012**	Analysis Date: **8/1/2012**	SeqNo: **129278** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.4	70	130			
Surr: 4-Bromofluorobenzene	0.36		0.5000		71.6	70	130			
Surr: Dibromofluoromethane	0.41		0.5000		82.0	70	130			
Surr: Toluene-d8	0.41		0.5000		81.9	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**	
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.6	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1207711-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	66.8	128			
Toluene	23	1.0	20.00	0	116	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1207711-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120982** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	66.8	128	0.0297	16.7	
Toluene	22	1.0	20.00	0	110	70	130	4.99	18.7	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.103	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130	7.04	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.3	70	130	2.25	17.5	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	12		10.00		119	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
roform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122008** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	95.5	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122636** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122636** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	84.1	126			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

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

Client ID: **LCSW** Batch ID: **R4402** RunNo: **4402**

Prep Date: Analysis Date: **7/24/2012** SeqNo: **122639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1207922-010a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4402** RunNo: **4402**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **122640** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128			
Toluene	21	1.0	20.00	0.7840	103	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1207922-010a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4402** RunNo: **4402**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **122641** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128	0.357	16.7	
Toluene	20	1.0	20.00	0.7840	97.4	70	130	4.94	18.7	
Chlorobenzene	19	1.0	20.00	0	96.4	70	130	5.90	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	90.7	70	130	5.30	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	86.6	70	130	0.772	17.5	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

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

Client ID: **PBW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- K Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

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

Client ID: **PBW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.5	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

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

Client ID: **LCSW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125371** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	20	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.8	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/25/2012** SeqNo: **125372** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	20	1.0	20.00	0	99.6	80	120			
Chlorobenzene	20	1.0	20.00	0	98.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.2	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1207949-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/25/2012** SeqNo: **125377** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.9	66.8	128			
Toluene	21	1.0	20.00	0.7920	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **1207a22-002ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **125378** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	990	50	1000	0	99.1	70	130			
1,1-Dichloroethene	910	50	1000	0	91.0	70	130			
Trichloroethene (TCE)	870	50	1000	0	86.7	70	130			
Surr: 1,2-Dichloroethane-d4	460		500.0		92.4	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.8	70	130			
Surr: Dibromofluoromethane	510		500.0		102	70	130			
Surr: Toluene-d8	500		500.0		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207a22-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125380** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	1000	50	1000	0	101	70	130	1.54	19.5	
1,1-Dichloroethene	870	50	1000	0	86.5	70	130	4.99	16.7	
Trichloroethene (TCE)	850	50	1000	0	85.2	70	130	1.72	17.5	
Surr: 1,2-Dichloroethane-d4	470		500.0		93.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		96.2	70	130	0	0	
Surr: Dibromofluoromethane	520		500.0		104	70	130	0	0	
Surr: Toluene-d8	520		500.0		105	70	130	0	0	

Sample ID **1207949-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125381** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.8	66.8	128	0.104	16.7	
Toluene	20	1.0	20.00	0.7920	96.9	70	130	4.87	18.7	
Chlorobenzene	19	1.0	20.00	0	96.2	70	130	7.41	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	87.7	70	130	3.88	16.7	
loroethene (TCE)	17	1.0	20.00	0	83.0	70	130	2.51	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		107	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126086** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**	
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126086**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126086** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	84.1	126			
Toluene	22	1.0	20.00	0	108	80	120			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.7	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.3	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **1207a57-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126091** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1100	50	1000	147.3	97.1	70	130			
Chlorobenzene	1000	50	1000	0	100	70	130			
1,1-Dichloroethene	870	50	1000	0	87.0	70	130			
Trichloroethene (TCE)	850	50	1000	0	85.3	70	130			
Surr: 1,2-Dichloroethane-d4	470		500.0		93.5	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.0	70	130			
Surr: Dibromofluoromethane	530		500.0		106	70	130			
Surr: Toluene-d8	520		500.0		104	70	130			

Sample ID **1207a57-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126092** Units: **µg/L**

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

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207a57-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R4498** RunNo: **4498**
Prep Date: Analysis Date: **7/27/2012** SeqNo: **126092** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1100	50	1000	147.3	95.6	70	130	1.34	18.7	
Chlorobenzene	980	50	1000	0	98.4	70	130	1.66	19.5	
1,1-Dichloroethene	800	50	1000	0	80.4	70	130	7.82	16.7	
Trichloroethene (TCE)	810	50	1000	0	80.6	70	130	5.66	17.5	
Surr: 1,2-Dichloroethane-d4	460		500.0		91.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	500		500.0		99.5	70	130	0	0	
Surr: Dibromofluoromethane	530		500.0		106	70	130	0	0	
Surr: Toluene-d8	520		500.0		104	70	130	0	0	

Sample ID **5ml rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R4537** RunNo: **4537**
Prep Date: Analysis Date: **7/30/2012** SeqNo: **127430** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127430** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.0	70	130			

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

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

Client ID: **PBW** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127430** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		102	70	130			

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

Client ID: **LCSW** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127433** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.1	84.1	126			
Toluene	20	1.0	20.00	0	98.4	80	120			
Chlorobenzene	20	1.0	20.00	0	99.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	83.3	83	130			
Trichloroethene (TCE)	16	1.0	20.00	0	79.3	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.9	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **1207b41-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127434** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	56000	50	1000	57800	-161	66.8	128			SE
Toluene	62000	50	1000	60240	223	70	130			SE
Chlorobenzene	1000	50	1000	0	103	70	130			
1,1-Dichloroethene	830	50	1000	0	83.4	70	130			
Trichloroethene (TCE)	810	50	1000	0	80.8	70	130			
Surr: 1,2-Dichloroethane-d4	430		500.0		87.0	70	130			
Surr: 4-Bromofluorobenzene	500		500.0		100	70	130			
Surr: Dibromofluoromethane	440		500.0		87.4	70	130			
Surr: Toluene-d8	540		500.0		108	70	130			

Sample ID **1207b41-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127435** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	57000	50	1000	57800	-55.7	66.8	128	1.86	16.7	SE
Toluene	59000	50	1000	60240	-131	70	130	5.82	18.7	SE
Chlorobenzene	990	50	1000	0	98.7	70	130	4.19	19.5	
1,1-Dichloroethene	790	50	1000	0	78.8	70	130	5.63	16.7	
Trichloroethene (TCE)	820	50	1000	0	82.2	70	130	1.72	17.5	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207b41-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R4537**	RunNo: **4537**							
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127435**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	450		500.0		89.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	490		500.0		98.0	70	130	0	0	
Surr: Dibromofluoromethane	450		500.0		90.7	70	130	0	0	
Surr: Toluene-d8	520		500.0		103	70	130	0	0	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**	
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
roaniline	ND	0.40								
obenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.6	19	133			
Surr: 2-Fluorophenol	2.0		3.330		60.2	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.0	18.9	115			
Surr: Nitrobenzene-d5	1.1		1.670		67.4	20.8	123			
Surr: Phenol-d5	2.4		3.330		70.9	19.8	115			

Sample ID **lcs-3024**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125907** Units: **mg/Kg**

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

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **lcs-3024**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.7	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	61.7	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	63.5	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	78.9	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.4	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	85.9	44.2	107			
Pentachlorophenol	2.5	0.40	3.330	0	74.5	36.2	80			
Phenol	2.4	0.20	3.330	0	71.3	42.7	92.7			
Pyrene	1.1	0.20	1.670	0	67.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.0	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		74.2	19	133			
Surr: 2-Fluorophenol	1.9		3.330		57.9	20.2	108			
Surr: 4-Terphenyl-d14	1.4		1.670		84.5	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		70.6	20.8	123			
Surr: Phenol-d5	2.3		3.330		68.9	19.8	115			

Sample ID **1207922-008Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.7	0.40	1.674	0	101	38.6	100			S
4-Chloro-3-methylphenol	2.8	1.0	3.339	0	84.9	35.8	108			
2-Chlorophenol	2.7	0.40	3.339	0	81.4	48.2	96.1			
1,4-Dichlorobenzene	1.2	0.40	1.674	0	73.3	42.5	97.6			
2,4-Dinitrotoluene	1.2	1.0	1.674	0	68.9	51.2	108			
N-Nitrosodi-n-propylamine	ND	0.40	1.674	0	0	31.6	114			S
4-Nitrophenol	2.1	0.50	3.339	0	63.0	22.7	144			
Pentachlorophenol	2.2	0.80	3.339	0	64.8	24	109			
Phenol	3.0	0.40	3.339	0	88.9	33.1	108			
Pyrene	1.6	0.40	1.674	0.2483	83.5	42.7	98.9			
1,2,4-Trichlorobenzene	1.2	0.40	1.674	0	69.7	27.1	118			
Surr: 2,4,6-Tribromophenol	2.2		3.339		67.3	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.674		76.2	19	133			
Surr: 2-Fluorophenol	2.4		3.339		71.5	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.674		90.0	18.9	115			
Surr: Nitrobenzene-d5	0		1.674		0	20.8	123			S
Surr: Phenol-d5	2.8		3.339		83.5	19.8	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207922-008Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **3024** RunNo: **4492**

Prep Date: **7/25/2012** Analysis Date: **7/27/2012** SeqNo: **125928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.40	1.671	0	86.7	38.6	100	15.9	20	
4-Chloro-3-methylphenol	2.8	1.0	3.332	0	84.1	35.8	108	1.20	20	
2-Chlorophenol	2.6	0.40	3.332	0	76.5	48.2	96.1	6.31	20	
1,4-Dichlorobenzene	1.2	0.40	1.671	0	70.6	42.5	97.6	3.92	20	
2,4-Dinitrotoluene	1.3	1.0	1.671	0	75.0	51.2	108	8.24	20	
N-Nitrosodi-n-propylamine	ND	0.40	1.671	0	0	31.6	114	0	20	S
4-Nitrophenol	2.0	0.50	3.332	0	61.2	22.7	144	3.20	20	
Pentachlorophenol	2.4	0.80	3.332	0	72.1	24	109	10.3	20	
Phenol	2.7	0.40	3.332	0	80.9	33.1	108	9.61	20	
Pyrene	1.5	0.40	1.671	0.2483	75.5	42.7	98.9	8.58	20	
1,2,4-Trichlorobenzene	1.2	0.40	1.671	0	74.3	27.1	118	6.12	20	
Surr: 2,4,6-Tribromophenol	2.3		3.332		69.8	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.671		70.5	19	133	0	0	
Surr: 2-Fluorophenol	2.4		3.332		71.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.4		1.671		84.2	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.2		1.671		74.7	20.8	123	0	0	
Surr: Phenol-d5	2.7		3.332		80.4	19.8	115	0	0	

Sample ID **mb-3046** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127860** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3046**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **3046**	RunNo: **4555**	
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127860**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3046**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3046**	RunNo: **4555**
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127860** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	1.6		3.330		49.3	20.1	121			
Surr: 2-Fluorobiphenyl	0.71		1.670		42.7	19	133			
Surr: 2-Fluorophenol	1.2		3.330		34.6	20.2	108			
Surr: 4-Terphenyl-d14	0.73		1.670		43.6	18.9	115			
Surr: Nitrobenzene-d5	0.67		1.670		39.9	20.8	123			
Surr: Phenol-d5	1.3		3.330		38.0	19.8	115			

Sample ID **lcs-3046**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3046**	RunNo: **4555**
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127861** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.9	49.7	98.1			
4-Chloro-3-methylphenol	2.5	0.50	3.330	0	74.2	43.8	89.1			
2-Chlorophenol	2.2	0.20	3.330	0	66.0	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	60.6	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.9	44.4	104			
N-Nitrosodi-n-propylamine	1.3	0.20	1.670	0	74.9	39.1	86.9			
4-Nitrophenol	3.0	0.25	3.330	0	91.2	44.2	107			
Pentachlorophenol	2.6	0.40	3.330	0	78.4	36.2	80			
Phenol	2.3	0.20	3.330	0	70.2	42.7	92.7			
Pyrene	1.1	0.20	1.670	0	68.4	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	70.8	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.0		3.330		91.5	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		71.4	19	133			
Surr: 2-Fluorophenol	1.9		3.330		56.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		69.2	20.8	123			
Surr: Phenol-d5	2.4		3.330		71.7	19.8	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207940-019Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 14-19 (0-0.5')** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.99	1.660	0	85.1	38.6	100			
4-Chloro-3-methylphenol	2.6	2.5	3.310	0	78.4	35.8	108			
2-Chlorophenol	2.7	0.99	3.310	0	81.1	48.2	96.1			
1,4-Dichlorobenzene	ND	0.99	1.660	0	52.6	42.5	97.6			
2,4-Dinitrotoluene	ND	2.5	1.660	0	85.7	51.2	108			
N-Nitrosodi-n-propylamine	1.3	0.99	1.660	0	80.5	31.6	114			
4-Nitrophenol	3.1	1.2	3.310	0	93.7	22.7	144			
Pentachlorophenol	2.3	2.0	3.310	0	68.5	24	109			
Phenol	2.6	0.99	3.310	0	77.6	33.1	108			
Pyrene	1.3	0.99	1.660	0	76.4	42.7	98.9			
1,2,4-Trichlorobenzene	1.3	0.99	1.660	0	75.7	27.1	118			
Surr: 2,4,6-Tribromophenol	3.2		3.310		95.8	20.1	121			
Surr: 2-Fluorobiphenyl	1.5		1.660		92.9	19	133			
Surr: 2-Fluorophenol	2.5		3.310		76.5	20.2	108			
Surr: 4-Terphenyl-d14	1.7		1.660		102	18.9	115			
Surr: Nitrobenzene-d5	1.5		1.660		91.6	20.8	123			
Surr: Phenol-d5	2.9		3.310		87.9	19.8	115			

Sample ID **1207940-019Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 14-19 (0-0.5')** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127875** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	1.0	1.667	0	88.2	38.6	100	3.97	20	
4-Chloro-3-methylphenol	2.5	2.5	3.323	0	76.3	35.8	108	2.32	20	
2-Chlorophenol	2.7	1.0	3.323	0	81.7	48.2	96.1	1.14	20	
1,4-Dichlorobenzene	ND	1.0	1.667	0	53.7	42.5	97.6	0	20	
2,4-Dinitrotoluene	ND	2.5	1.667	0	85.3	51.2	108	0	20	
N-Nitrosodi-n-propylamine	1.5	1.0	1.667	0	90.9	31.6	114	12.5	20	
4-Nitrophenol	2.8	1.2	3.323	0	83.9	22.7	144	10.6	20	
Pentachlorophenol	2.3	2.0	3.323	0	70.3	24	109	3.07	20	
Phenol	2.7	1.0	3.323	0	80.4	33.1	108	3.94	20	
Pyrene	1.4	1.0	1.667	0	83.0	42.7	98.9	8.66	20	
1,2,4-Trichlorobenzene	1.3	1.0	1.667	0	80.3	27.1	118	6.28	20	
Surr: 2,4,6-Tribromophenol	3.5		3.323		106	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.667		96.8	19	133	0	0	
Surr: 2-Fluorophenol	2.5		3.323		75.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.8		1.667		108	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.5		1.667		90.8	20.8	123	0	0	
Surr: Phenol-d5	3.1		3.323		91.9	19.8	115	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

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

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		85.4	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		85.5	37	114			
Surr: 2-Fluorophenol	120		200.0		61.4	23.4	98			
Surr: 4-Terphenyl-d14	79		100.0		79.3	41.3	116			
Surr: Nitrobenzene-d5	84		100.0		84.2	39.5	118			
Surr: Phenol-d5	110		200.0		53.2	20.9	95.9			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2989** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **2989** RunNo: **4400**

Prep Date: **7/24/2012** Analysis Date: **7/24/2012** SeqNo: **122514** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.1	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	35.5	108			
2-Chlorophenol	130	10	200.0	0	62.6	29.8	106			
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5			
2,4-Dinitrotoluene	83	10	100.0	0	82.7	44.7	112			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.3	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	61.2	20.2	93			
Phenol	84	10	200.0	0	42.0	23	66.1			
Pyrene	71	10	100.0	0	71.2	40.1	101			
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		81.9	44.2	126			
Surr: 2-Fluorobiphenyl	73		100.0		72.8	37	114			
Surr: 2-Fluorophenol	98		200.0		49.2	23.4	98			
Surr: 4-Terphenyl-d14	71		100.0		70.6	41.3	116			
Surr: Nitrobenzene-d5	65		100.0		65.1	39.5	118			
Surr: Phenol-d5	91		200.0		45.5	20.9	95.9			

Sample ID **lcsd-2989** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **2989** RunNo: **4400**

Prep Date: **7/24/2012** Analysis Date: **7/24/2012** SeqNo: **122515** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.9	38.2	99.4	2.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	35.5	108	13.1	20	
2-Chlorophenol	110	10	200.0	0	55.6	29.8	106	11.9	20	
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5	0.0854	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.2	44.7	112	9.75	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	38.5	105	5.82	20	
4-Nitrophenol	92	10	200.0	0	46.1	11.6	73.1	2.55	20	
Pentachlorophenol	110	20	200.0	0	57.5	20.2	93	6.30	20	
Phenol	83	10	200.0	0	41.5	23	66.1	1.15	20	
Pyrene	71	10	100.0	0	71.2	40.1	101	0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.5	37.7	99.1	3.33	20	
Surr: 2,4,6-Tribromophenol	150		200.0		75.1	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	73		100.0		73.1	37	114	0	0	
Surr: 2-Fluorophenol	81		200.0		40.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	80		100.0		79.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

Qualifiers:

- ‹ Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**MB-3130**	SampType: **MBLK**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID: **3130**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128924**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-3130**	SampType: **LCS**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID: **3130**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128925**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	97.2	80	120			

Sample ID	**1207940-002CMS**	SampType: **MS**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**SWMU 14-10 (1.5-2.**	Batch ID: **3130**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128936**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.60	0.16	0.1647	0.2056	237	75	125			S

Sample ID	**1207940-002CMSD**	SampType: **MSD**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**SWMU 14-10 (1.5-2.**	Batch ID: **3130**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128937**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.60	0.16	0.1648	0.2056	240	75	125	1.01	20	S

Sample ID	**MB-3131**	SampType: **MBLK**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID: **3131**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128955**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-3131**	SampType: **LCS**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID: **3131**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128956**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	93.3	80	120			

Sample ID	**1207B18-001BMS**	SampType: **MS**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**BatchQC**	Batch ID: **3131**		RunNo: **4597**					
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128971**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.21	0.033	0.1648	0.06444	87.3	75	125			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**1207B18-001BMSD**	SampType: **MSD**		TestCode: **EPA Method 7471: Mercury**						
Client ID:	**BatchQC**	Batch ID: **3131**		RunNo: **4597**						
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128972**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1651	0.06444	84.5	75	125	2.10	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-3008**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **3008**	RunNo: **4553**
Prep Date: **7/24/2012**	Analysis Date: **7/31/2012**	SeqNo: **127775** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-3008**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **3008**	RunNo: **4553**
Prep Date: **7/24/2012**	Analysis Date: **7/31/2012**	SeqNo: **127776** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0	99.1	80	120			
Arsenic	25	2.5	25.00	0	99.4	80	120			
Barium	23	0.10	25.00	0	91.4	80	120			
Beryllium	25	0.15	25.00	0	99.8	80	120			
Cadmium	24	0.10	25.00	0	95.2	80	120			
Chromium	23	0.30	25.00	0	91.3	80	120			
Lead	23	0.25	25.00	0	91.5	80	120			
Manganese	23	0.10	25.00	0	90.9	80	120			
Nickel	22	0.50	25.00	0	89.6	80	120			
Selenium	27	2.5	25.00	0	107	80	120			
Vanadium	24	2.5	25.00	0	94.7	80	120			
Zinc	23	2.5	25.00	0.7005	90.4	80	120			

Sample ID **MB-3008**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **3008**	RunNo: **4605**
Prep Date: **7/24/2012**	Analysis Date: **8/1/2012**	SeqNo: **129181** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.30								
Iron	1.0	1.0								
Silver	ND	0.25								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS-3008**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **3008**	RunNo: **4605**
Prep Date: **7/24/2012**	Analysis Date: **8/1/2012**	SeqNo: **129182** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	25	0.30	25.00	0	98.5	80	120			
Iron	25	1.0	25.00	1.039	96.0	80	120			B
Silver	5.1	0.25	5.000	0.05000	101	80	120			

Sample ID **1207940-020CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-19 (1.5-2.**	Batch ID: **3008**	RunNo: **4605**
Prep Date: **7/24/2012**	Analysis Date: **8/1/2012**	SeqNo: **129201** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.88	0	47.5	75	125			S
Arsenic	24	12	24.88	0	97.0	75	125			
Beryllium	26	0.75	24.88	0.8069	99.9	75	125			
Cadmium	24	0.50	24.88	0	95.6	75	125			
Chromium	38	1.5	24.88	11.91	106	75	125			
Cobalt	28	1.5	24.88	4.819	95.1	75	125			
Lead	29	1.2	24.88	4.128	99.7	75	125			
Nickel	32	2.5	24.88	8.015	95.1	75	125			
nium	17	12	24.88	0	67.6	75	125			S
ver	4.6	1.2	4.976	0	93.1	75	125			
Vanadium	50	12	24.88	21.23	117	75	125			
Zinc	61	12	24.88	33.83	108	75	125			

Sample ID **1207940-020CMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-19 (1.5-2.**	Batch ID: **3008**	RunNo: **4605**
Prep Date: **7/24/2012**	Analysis Date: **8/1/2012**	SeqNo: **129202** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.62	0	38.2	75	125	0	20	SR
Arsenic	21	12	24.62	0	83.9	75	125	15.5	20	
Beryllium	23	0.75	24.62	0.8069	92.2	75	125	8.77	20	
Cadmium	22	0.50	24.62	0	88.1	75	125	9.20	20	
Chromium	33	1.5	24.62	11.91	87.6	75	125	13.1	20	
Cobalt	25	1.5	24.62	4.819	83.8	75	125	11.2	20	
Lead	28	1.2	24.62	4.128	95.3	75	125	4.83	20	
Nickel	28	2.5	24.62	8.015	80.0	75	125	13.3	20	
Selenium	18	12	24.62	0	74.2	75	125	8.38	20	S
Silver	4.1	1.2	4.924	0	84.1	75	125	11.3	20	
Vanadium	46	12	24.62	21.23	102	75	125	8.17	20	
Zinc	51	12	24.62	33.83	69.2	75	125	17.5	20	S

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-3009** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **3009** RunNo: **4698**
Prep Date: **7/24/2012** Analysis Date: **8/6/2012** SeqNo: **132140** Units: **mg/Kg**

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

Sample ID **LCS-3009** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **3009** RunNo: **4698**
Prep Date: **7/24/2012** Analysis Date: **8/6/2012** SeqNo: **132141** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.9555	99.3	80	120			

Sample ID **MB-3009** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **3009** RunNo: **4699**
Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132220** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-3009** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **3009** RunNo: **4699**
Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132221** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	28	2.5	25.00	0	114	80	120			
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	27	0.10	25.00	0	107	80	120			
Beryllium	29	0.15	25.00	0.01250	117	80	120			
Cadmium	27	0.10	25.00	0	110	80	120			
Chromium	26	0.30	25.00	0	106	80	120			
Cobalt	29	0.30	25.00	0	115	80	120			
Lead	27	0.25	25.00	0	110	80	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS-3009** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132221** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	26	0.10	25.00	0.07300	106	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	30	2.5	25.00	0	121	80	120			S
Silver	5.4	0.25	5.000	0	108	80	120			
Vanadium	27	2.5	25.00	0.07050	109	80	120			
Zinc	29	2.5	25.00	0	116	80	120			

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	21	12	23.84	0	89.4	75	125			
Beryllium	24	0.75	23.84	0.6761	97.6	75	125			
Cadmium	22	0.50	23.84	0	90.6	75	125			
Chromium	29	1.5	23.84	8.850	84.7	75	125			
Cobalt	26	1.5	23.84	4.445	90.6	75	125			
[illegible]	23	1.2	23.84	3.311	82.6	75	125			
[illegible]ckel	27	2.5	23.84	6.181	86.9	75	125			
Silver	4.0	1.2	4.768	0	83.8	75	125			

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.91	0	94.6	75	125	9.99	20	
Beryllium	25	0.75	24.91	0.6761	98.4	75	125	5.04	20	
Cadmium	23	0.50	24.91	0	90.6	75	125	4.33	20	
Chromium	32	1.5	24.91	8.850	94.1	75	125	10.6	20	
Cobalt	27	1.5	24.91	4.445	91.3	75	125	4.29	20	
Lead	25	1.2	24.91	3.311	87.3	75	125	8.61	20	
Nickel	29	2.5	24.91	6.181	91.7	75	125	7.56	20	
Silver	4.4	1.2	4.982	0	88.1	75	125	9.44	20	

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4734**

Prep Date: **7/24/2012** Analysis Date: **8/8/2012** SeqNo: **133485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	13	12	23.84	0	54.1	75	125			S
Vanadium	43	12	23.84	31.42	47.7	75	125			S

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **3009** RunNo: **4734**
Prep Date: **7/24/2012** Analysis Date: **8/8/2012** SeqNo: **133486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	14	12	24.91	0	57.7	75	125	10.9	20	S
Vanadium	55	12	24.91	31.42	93.0	75	125	24.2	20	R

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **3009** RunNo: **4816**
Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	23.84	3.961	28.4	75	125			S
Zinc	35	13	23.84	16.80	76.6	75	125			

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **3009** RunNo: **4816**
Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135934** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	24.91	3.961	34.3	75	125	0	20	S
Zinc	39	13	24.91	16.80	90.3	75	125	11.4	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1207940**

Received by/date: 07/20/12

Logged By: **Ashley Gallegos** 7/20/2012 2:26:00 PM

Completed By: **Ashley Gallegos** 7/20/2012 2:44:32 PM

Reviewed By: mg 07/20/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 4,3
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0227
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: [ ] No
Sample Temperature: 3.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207140
7/19/12	1100	SOIL	SWMU 14-10 (0-0.5')	2 ENCORES	—	-001
				2 VIALS	MeOH	
				2 JARS	—	
	1105	SOIL	SWMU 14-10 (1.5-2.0')	2 ENCORES	—	-002
				2 VIALS	MeOH	
				2 JARS	—	
	1127	SOIL	SWMU 14-8 (0-0.5')	2 ENCORES	—	-003
				2 VIALS	MeOH	
				2 JARS	—	
	1140	SOIL	SWMU 14-8 (1.5-2.0')	2 ENCORES	—	-004
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by:
Received by: Date 7/20/12 Time 1426
Date: Time: Relinquished by:
Received by: Date Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 3.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1206146
7/19/12	1140	SOIL	SWMU 14-8 (1.5-2.0') DUP	2 ENCORES	—	-005
				2 VIALS	MeOH	
				2 JARS	—	
	1205		SWMU 14-12 (0-0.5')	2 ENCORES	~~NaOH~~ —	-006
				2 VIALS	MeOH	
				2 JARS	—	
	1212		SWMU 14-12 (1.5-2.0')	2 ENCORES	—	-007
				2 VIALS	MeOH	
				2 JARS	—	
	1236		SWMU 14-13 (0-0.5')	2 ENCORES	—	-008
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: [signature]
Received by: [signature] Date Time 7/20/12 1426

Date: Time: Relinquished by:
Received by: Date Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.0°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207146
7/19/12	1245	SOIL	SWMU 14-13 (1.5-2.0')	2 ENCORES	—	-009
				2 VIALS	MeOH	
				2 JARS	—	
	1307		SWMU 14-14 (0-0.5')	2 ENCORES	—	-010
				2 VIALS	MeOH	
				2 JARS	—	
	1312		SWMU 14-14 (1.5-2.0')	2 ENCORES	—	-011
				2 VIALS	MeOH	
				2 JARS	—	
	1333		SWMU 14-11 (0-0.5')	2 ENCORES	—	-012
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: [signature] Received by: [signature] Date: 7/20/12 Time: 1426
Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: ROUTE 3 BOX 7 GALLUP NM 87301

Phone #: 505-722-0217

email or Fax#: SCOTT CROUCH - RPS

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: SWMU No. 14

Project #:

Project Manager: SCOTT CROUCH - RPS

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: 5.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1206419	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1338	SOIL	SWMU 14-11 (1.5-2.0)	2 ENCORES	—	-013										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1408		SWMU 14-18 (0-0.5')	2 ENCORES	—	-014										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1415		SWMU 14-18 (1.5-2.0)	2 ENCORES	—	-015										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1500		SWMU 14-5 (0-0.5')	2 ENCORES	—	-016										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: _____ Received by: _____ Date: 7/20/12 Time: 1426

Date: _____ Time: _____ Relinquished by: _____ Received by: _____ Date: _____ Time: _____

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3, BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☐ Yes ☐ No
Sample Temperature: 2 °C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207240
7/19/12	1500	SOIL	SWMU 14-5 (0-0.5') DUP	2 ENCORES	—	-017
				2 VIALS	MeOH	
				2 JARS	—	
	1506		SWMU 14-5 (1.5-2.0')	2 ENCORES	—	-018
				2 VIALS	MeOH	
				2 JARS	—	
	1526		SWMU 14-19 (0-0.5')	2 ENCORES	—	-019
				2 VIALS	MeOH	
				2 JARS	—	
	1533		SWMU 14-19 (1.5-2.0')	2 ENCORES	—	-020
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by:
Received by: Date 7/20/12 Time 1426
Date: Time: Relinquished by:
Received by: Date Time

Remarks:

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Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.6

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207210	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	K011	SOIL	SWMU 14-17 (0-0.5')	2 ENCORES	—	-021										X						
	↓		↓	2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	1618		SWMU 14-17 (1.5-2.0)	2 ENCORES	—	-022										X						
	↓		↓	2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	1645		SWMU 14-16 (0-0.5')	2 ENCORES	—	-023										X						
	↓		↓	2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	K651		SWMU 14-16 (1.5-2.0)	2 ENCORES	—	-024										X						
	↓		↓	2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: [signature] Received by: [signature] Date: 7/24/12 Time: 1426
Date: Time: Relinquished by: Received by: Date Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROCH-RBS
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☑ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RBS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 3

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207190	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1714	SOIL	SWMU 14-15 (0-0.5)	2 ENCORES	—	-025										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1719		SWMU 14-15 (1.5-2.0')	2 ENCORES	—	-026										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1750		SWMU 14-20 (0-0.5')	2 ENCORES	—	-027										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1750		SWMU 14-20 (0-0.5') DUP	2 ENCORES	—	-028										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by:
Received by: Date 7/21/12 Time 1426

Date: Time: Relinquished by:
Received by: Date Time

Remarks:

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GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☐ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: Yes No
Sample Temperature: 3

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207240	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH	METALS	DISSOLVED METALS		Air Bubbles (Y or N)
7/9/12	1000	WATER	SWMU 14-2 GW	6 VOA	HCL & NEAT	-029										X		X				
				1 LAMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			
				1 PLASTIC	HNO_3															X		
	1800	WATER	FB07191 2	6 VOA	HCL & NEAT	-030										X		X				
				1 LAMBER	-												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			

Date: 7/20/12 Time: 1426 Relinquished by:
Date: Time: Relinquished by:

Received by:
Received by:

Date Time
7/21/12 1426
Date Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC. GALLUP REFINERY

Mailing Address: ROUTE 3 BOX 7 GALLUP, NM 87301

Phone #: 505-722-0217

email or Fax#: SCOTT CROUCH-RBS

QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other ____

☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush ____

Project Name: SWMU No. 14

Project #:

Project Manager: SCOTT CROUCH-RBS

Sampler: TRACY PAYNE

On Ice: ☒ Yes ☐ No

Sample Temperature: [illegible]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH	METALS			Air Bubbles (Y or N)
7/9/12	1815	WATER	EB071912	6 VOA	HCL & NEAT	-031										X		X				
				1 L AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
7/10/12	—	WATER	TRIP BLANK	VOA	HCL	-032										X						
			MeOH Blank			-033																
						07/26/12																
			MeOH Blank			-034																

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/20/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 15, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1210860

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210860**
Date Reported: **11/15/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 5:50:17 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2012 5:50:17 AM
Surr: DNOP	100	77.6-140		%REC	1	10/21/2012 5:50:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2012 1:44:37 PM
Surr: BFB	99.5	84-116		%REC	1	10/27/2012 1:44:37 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	ND	0.033		mg/Kg	1	11/1/2012 4:09:42 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Barium	440	1.0		mg/Kg	10	10/25/2012 2:09:26 PM
Beryllium	0.80	0.30		mg/Kg	2	10/25/2012 12:21:41 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:21:41 PM
Chromium	10	0.60		mg/Kg	2	10/25/2012 12:21:41 PM
Cobalt	4.6	0.60		mg/Kg	2	10/25/2012 12:21:41 PM
Iron	15000	500		mg/Kg	500	11/2/2012 7:08:54 AM
Lead	2.5	0.50		mg/Kg	2	10/25/2012 12:21:41 PM
Manganese	450	1.0		mg/Kg	10	10/25/2012 2:09:26 PM
Nickel	8.0	1.0		mg/Kg	2	10/25/2012 12:21:41 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:23:58 PM
Vanadium	22	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Zinc	25	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Benzyl alcohol	0.32	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 9:26:31 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Surr: 2,4,6-Tribromophenol	84.3	21.3-145		%REC	1	10/24/2012 9:26:31 PM
Surr: 2-Fluorobiphenyl	83.6	20-131		%REC	1	10/24/2012 9:26:31 PM
Surr: 2-Fluorophenol	76.1	11.9-130		%REC	1	10/24/2012 9:26:31 PM
Surr: 4-Terphenyl-d14	74.2	25.1-149		%REC	1	10/24/2012 9:26:31 PM
Surr: Nitrobenzene-d5	88.7	25.6-137		%REC	1	10/24/2012 9:26:31 PM
Surr: Phenol-d5	75.5	20.3-132		%REC	1	10/24/2012 9:26:31 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00213	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Toluene	0.00222	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Ethylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Xylenes, Total	0.00380	0.00160		mg/Kg	1	10/19/2012 1:07:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,4-Trimethylbenzene	0.000935	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3,5-Trimethylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichloroethane (EDC)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dibromoethane (EDB)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Naphthalene	ND	0.00160		mg/Kg	1	10/19/2012 1:07:47 PM
1-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/19/2012 1:07:47 PM
2-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/19/2012 1:07:47 PM
Acetone	0.0480	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromodichloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromoform	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromomethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Butanone	0.00846	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
Carbon tetrachloride	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Chlorotoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Carbon disulfide	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Chlorotoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
cis-1,2-DCE	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
cis-1,3-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dibromo-3-chloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dibromochloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dibromomethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,4-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dichlorodifluoromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloroethene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2,2-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Hexachlorobutadiene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Isopropylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Isopropyltoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Methylene chloride	ND	0.00240		mg/Kg	1	10/19/2012 1:07:47 PM
n-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Hexanone	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
n-Propylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
sec-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Styrene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Methyl-2-pentanone	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
tert-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,1,2-Tetrachloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,2,2-Tetrachloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Tetrachloroethene (PCE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
trans-1,2-DCE	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
trans-1,3-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,3-Trichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,4-Trichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,1-Trichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,2-Trichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Trichloroethene (TCE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Trichlorofluoromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Vinyl chloride	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Surr: 1,2-Dichloroethane-d4	87.9	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: Toluene-d8	93.6	70-130		%REC	1	10/19/2012 1:07:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/19/2012 1:24:09 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/19/2012 1:24:09 PM
Surr: DNOP	95.6	77.6-140		%REC	1	10/19/2012 1:24:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2012 1:15:50 PM
Surr: BFB	96.3	84-116		%REC	1	10/27/2012 1:15:50 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	ND	0.033		mg/Kg	1	11/1/2012 4:11:28 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Barium	43	0.20		mg/Kg	2	10/25/2012 12:26:50 PM
Beryllium	0.83	0.30		mg/Kg	2	10/25/2012 12:26:50 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:26:50 PM
Chromium	7.8	0.60		mg/Kg	2	10/25/2012 12:26:50 PM
Cobalt	3.5	0.60		mg/Kg	2	10/25/2012 12:26:50 PM
Iron	16000	500		mg/Kg	500	11/2/2012 7:21:58 AM
Lead	3.3	0.50		mg/Kg	2	10/25/2012 12:26:50 PM
Manganese	230	1.0		mg/Kg	10	10/25/2012 2:14:32 PM
Nickel	6.4	1.0		mg/Kg	2	10/25/2012 12:26:50 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:26:49 PM
Vanadium	14	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Zinc	12	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 9:56:18 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Surr: 2,4,6-Tribromophenol	73.3	21.3-145		%REC	1	10/24/2012 9:56:18 PM
Surr: 2-Fluorobiphenyl	72.5	20-131		%REC	1	10/24/2012 9:56:18 PM
Surr: 2-Fluorophenol	71.3	11.9-130		%REC	1	10/24/2012 9:56:18 PM
Surr: 4-Terphenyl-d14	65.3	25.1-149		%REC	1	10/24/2012 9:56:18 PM
Surr: Nitrobenzene-d5	86.0	25.6-137		%REC	1	10/24/2012 9:56:18 PM
Surr: Phenol-d5	72.1	20.3-132		%REC	1	10/24/2012 9:56:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00129	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Toluene	0.000908	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Ethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Xylenes, Total	ND	0.00156		mg/Kg	1	10/19/2012 1:38:40 PM
Methyl tert-butyl ether (MTBE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,4-Trimethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3,5-Trimethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichloroethane (EDC)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dibromoethane (EDB)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Naphthalene	ND	0.00156		mg/Kg	1	10/19/2012 1:38:40 PM
1-Methylnaphthalene	ND	0.00313		mg/Kg	1	10/19/2012 1:38:40 PM
2-Methylnaphthalene	ND	0.00313		mg/Kg	1	10/19/2012 1:38:40 PM
Acetone	0.0202	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromodichloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromoform	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromomethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Butanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
Carbon tetrachloride	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Chlorotoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Carbon disulfide	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Chlorotoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
cis-1,2-DCE	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
cis-1,3-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dibromo-3-chloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dibromochloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dibromomethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,4-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dichlorodifluoromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloroethene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2,2-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Hexachlorobutadiene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Isopropylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Isopropyltoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Methylene chloride	ND	0.00235		mg/Kg	1	10/19/2012 1:38:40 PM
n-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Hexanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
n-Propylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
sec-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Styrene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Methyl-2-pentanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
tert-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,1,2-Tetrachloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,2,2-Tetrachloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Tetrachloroethene (PCE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
trans-1,2-DCE	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
trans-1,3-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,3-Trichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,4-Trichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,1-Trichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,2-Trichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Trichloroethene (TCE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Trichlorofluoromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Vinyl chloride	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: 4-Bromofluorobenzene	82.8	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: Toluene-d8	90.9	70-130		%REC	1	10/19/2012 1:38:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 1:57:39 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 1:57:39 AM
Surr: DNOP	98.9	79.5-166		%REC	1	10/20/2012 1:57:39 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/18/2012 2:51:00 PM
Chloride	ND	0.50		mg/L	1	10/18/2012 2:51:00 PM
Sulfate	ND	0.50		mg/L	1	10/18/2012 2:51:00 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Chromium	ND	0.0060		mg/L	1	10/24/2012 10:58:41 AM
Cobalt	ND	0.0060		mg/L	1	10/24/2012 10:58:41 AM
Iron	ND	0.020		mg/L	1	10/30/2012 10:09:01 AM
Manganese	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Nickel	ND	0.010		mg/L	1	10/24/2012 10:58:41 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 10:58:41 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 10:58:41 AM
Zinc	ND	0.010		mg/L	1	10/24/2012 10:58:41 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:56:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Aniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 8:17:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Carbazole	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Chrysene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Fluorene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Isophorone	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Phenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pyridine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Surr: 2,4,6-Tribromophenol	79.5	42.9-124		%REC	1	10/22/2012 8:17:14 PM
Surr: 2-Fluorobiphenyl	72.6	40-108		%REC	1	10/22/2012 8:17:14 PM
Surr: 2-Fluorophenol	52.9	23.6-94.8		%REC	1	10/22/2012 8:17:14 PM
Surr: 4-Terphenyl-d14	72.0	41.9-103		%REC	1	10/22/2012 8:17:14 PM
Surr: Nitrobenzene-d5	71.9	42.6-114		%REC	1	10/22/2012 8:17:14 PM
Surr: Phenol-d5	39.3	20.3-74.7		%REC	1	10/22/2012 8:17:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Toluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 5:03:12 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 5:03:12 PM
Acetone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
2-Hexanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 5:03:12 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: Dibromofluoromethane	98.0	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: Toluene-d8	113	70-130		%REC	1	10/19/2012 5:03:12 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 1:50:20 PM
Surr: BFB	98.2	70-130		%REC	1	10/21/2012 1:50:20 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 2:22:46 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 2:22:46 AM
Surr: DNOP	103	79.5-166		%REC	1	10/20/2012 2:22:46 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/18/2012 2:26:11 PM
Chloride	ND	0.50		mg/L	1	10/18/2012 2:26:11 PM
Sulfate	ND	0.50		mg/L	1	10/18/2012 2:26:11 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.68	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Chromium	0.012	0.0060		mg/L	1	10/24/2012 11:16:26 AM
Cobalt	0.044	0.0060		mg/L	1	10/24/2012 11:16:26 AM
Iron	5.6	0.20	*	mg/L	10	10/26/2012 3:07:03 PM
Manganese	2.0	0.010	*	mg/L	5	10/24/2012 11:19:39 AM
Nickel	0.13	0.010	*	mg/L	1	10/24/2012 11:16:26 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 11:16:26 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 11:16:26 AM
Zinc	0.099	0.010		mg/L	1	10/24/2012 11:16:26 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Arsenic	0.0085	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Lead	0.010	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Selenium	0.016	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:58:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Aniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 8:46:44 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Carbazole	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Chrysene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Fluorene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Isophorone	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Phenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pyridine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Surr: 2,4,6-Tribromophenol	76.2	42.9-124		%REC	1	10/22/2012 8:46:44 PM
Surr: 2-Fluorobiphenyl	75.3	40-108		%REC	1	10/22/2012 8:46:44 PM
Surr: 2-Fluorophenol	60.6	23.6-94.8		%REC	1	10/22/2012 8:46:44 PM
Surr: 4-Terphenyl-d14	77.9	41.9-103		%REC	1	10/22/2012 8:46:44 PM
Surr: Nitrobenzene-d5	90.4	42.6-114		%REC	1	10/22/2012 8:46:44 PM
Surr: Phenol-d5	45.7	20.3-74.7		%REC	1	10/22/2012 8:46:44 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	13	10		µg/L	10	10/19/2012 6:35:45 PM
Toluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Ethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Methyl tert-butyl ether (MTBE)	440	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Naphthalene	ND	20		µg/L	10	10/19/2012 6:35:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	10/19/2012 6:35:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	10/19/2012 6:35:45 PM
Acetone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Bromobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromodichloromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromoform	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromomethane	ND	30		µg/L	10	10/19/2012 6:35:45 PM
2-Butanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chloroethane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Chloroform	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chloromethane	ND	30		µg/L	10	10/19/2012 6:35:45 PM
2-Chlorotoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Chlorotoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
cis-1,2-DCE	ND	10		µg/L	10	10/19/2012 6:35:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Dibromochloromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Dibromomethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
2-Hexanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Isopropylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Methylene Chloride	ND	30		µg/L	10	10/19/2012 6:35:45 PM
n-Butylbenzene	ND	30		µg/L	10	10/19/2012 6:35:45 PM
n-Propylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
sec-Butylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Styrene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
tert-Butylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
trans-1,2-DCE	ND	10		µg/L	10	10/19/2012 6:35:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Vinyl chloride	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Xylenes, Total	ND	15		µg/L	10	10/19/2012 6:35:45 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: Dibromofluoromethane	92.5	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: Toluene-d8	110	70-130		%REC	10	10/19/2012 6:35:45 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	10/22/2012 1:13:58 AM
Surr: BFB	94.3	70-130		%REC	10	10/22/2012 1:13:58 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 2:47:36 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 2:47:36 AM
Surr: DNOP	99.6	79.5-166		%REC	1	10/20/2012 2:47:36 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	2.9	0.50		mg/L	5	10/18/2012 4:05:28 PM
Chloride	1900	100		mg/L	200	10/19/2012 1:10:23 PM
Sulfate	100	2.5		mg/L	5	10/18/2012 4:05:28 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Chromium	ND	0.0060		mg/L	1	10/24/2012 11:32:58 AM
Cobalt	0.0072	0.0060		mg/L	1	10/24/2012 11:32:58 AM
Iron	ND	0.020		mg/L	1	11/5/2012 1:26:43 PM
Manganese	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Nickel	ND	0.010		mg/L	1	10/24/2012 11:32:58 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 11:32:58 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 11:32:58 AM
Zinc	ND	0.010		mg/L	1	10/24/2012 11:32:58 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 8:00:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Aniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 9:16:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Carbazole	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Chrysene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Fluorene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Isophorone	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Phenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pyridine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Surr: 2,4,6-Tribromophenol	77.4	42.9-124		%REC	1	10/22/2012 9:16:11 PM
Surr: 2-Fluorobiphenyl	69.2	40-108		%REC	1	10/22/2012 9:16:11 PM
Surr: 2-Fluorophenol	48.2	23.6-94.8		%REC	1	10/22/2012 9:16:11 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	10/22/2012 9:16:11 PM
Surr: Nitrobenzene-d5	74.3	42.6-114		%REC	1	10/22/2012 9:16:11 PM
Surr: Phenol-d5	39.2	20.3-74.7		%REC	1	10/22/2012 9:16:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Toluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:06:33 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:06:33 PM
Acetone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
2-Hexanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 7:06:33 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: Toluene-d8	117	70-130		%REC	1	10/19/2012 7:06:33 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 2:18:53 PM
Surr: BFB	83.5	70-130		%REC	1	10/21/2012 2:18:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1210860-006
Matrix: TRIP BLANK
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 2:08:01 AM
Toluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:37:20 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:37:20 PM
Acetone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Carbon disulfide	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1210860-006
Matrix: TRIP BLANK
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DJF**
2-Hexanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 7:37:20 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: Dibromofluoromethane	88.3	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: Toluene-d8	113	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: BFB	97.7	70-130		%REC	1	10/21/2012 2:08:01 AM

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 121019048
Project Name: 1210860

Analytical Results Report

Sample Number 121019048-001 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-001D / SWMU 14-24 (0-0.5) **Sampling Time** 10:15 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.263	10/30/2012	CRW	EPA 335.4	
%moisture	5.4	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019048-002 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-002D / SWMU 14-24 (1.5-2) **Sampling Time** 10:30 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.311	10/30/2012	CRW	EPA 335.4	
%moisture	19.9	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019048-003 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-003F / EB101712 **Sampling Time** 11:00 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/30/2012	CRW	EPA 335.4	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Anatek Labs, Inc.

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

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

Batch #: 121019048
Project Name: 1210860

Analytical Results Report

Sample Number	121019048-004	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210860-004F / SWMU 14-OAPIS-1GW	**Sampling Time**	9:00 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0899	mg/L	0.01	10/29/2012	CRW	EPA 335.4	

Sample Number	121019048-005	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210860-005F / EB101612	**Sampling Time**	5:20 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/29/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185486** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185487** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
yllium	0.51	0.0020	0.5000	0	103	85	115			
admium	0.49	0.0020	0.5000	0	98.9	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Nickel	0.46	0.010	0.5000	0	92.9	85	115			
Silver	0.099	0.0050	0.1000	0	98.7	85	115			
Vanadium	0.52	0.050	0.5000	0	103	85	115			
Zinc	0.49	0.010	0.5000	0	98.7	85	115			

Sample ID **1210860-005EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **EB101612**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185584** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.0005100	101	70	130			
Beryllium	0.54	0.0020	0.5000	0	108	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.50	0.0060	0.5000	0	99.8	70	130			
Cobalt	0.49	0.0060	0.5000	0.007250	96.8	70	130			
Manganese	0.49	0.0020	0.5000	0	98.4	70	130			
Nickel	0.48	0.010	0.5000	0	95.8	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Vanadium	0.53	0.050	0.5000	0	106	70	130			
Zinc	0.50	0.010	0.5000	0	101	70	130			

Qualifiers:

- ' Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1210860-005EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**
Client ID: **EB101612** Batch ID: **R6448** RunNo: **6448**
Prep Date: Analysis Date: **10/24/2012** SeqNo: **185585** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.0005100	100	70	130	0.371	20	
Beryllium	0.54	0.0020	0.5000	0	108	70	130	0.157	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.178	20	
Chromium	0.50	0.0060	0.5000	0	99.3	70	130	0.460	20	
Cobalt	0.49	0.0060	0.5000	0.007250	96.4	70	130	0.406	20	
Manganese	0.49	0.0020	0.5000	0	98.0	70	130	0.393	20	
Nickel	0.48	0.010	0.5000	0	95.4	70	130	0.513	20	
Silver	0.10	0.0050	0.1000	0	103	70	130	0.0872	20	
Vanadium	0.53	0.050	0.5000	0	106	70	130	0.179	20	
Zinc	0.50	0.010	0.5000	0	99.4	70	130	1.40	20	

Sample ID **MB-4467** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **4467** RunNo: **6517**
Prep Date: **10/23/2012** Analysis Date: **10/26/2012** SeqNo: **188054** Units: **mg/L**

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

Sample ID **LCS-4467** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **4467** RunNo: **6517**
Prep Date: **10/23/2012** Analysis Date: **10/26/2012** SeqNo: **188055** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	99.0	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW** Batch ID: **R6577** RunNo: **6577**
Prep Date: Analysis Date: **10/30/2012** SeqNo: **189771** Units: **mg/L**

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

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW** Batch ID: **R6577** RunNo: **6577**
Prep Date: Analysis Date: **10/30/2012** SeqNo: **189772** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0	104	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4467**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **4467**	RunNo: **6448**
Prep Date: **10/23/2012**	Analysis Date: **10/24/2012**	SeqNo: **191046** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-4467**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **4467**	RunNo: **6448**
Prep Date: **10/23/2012**	Analysis Date: **10/24/2012**	SeqNo: **191048** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.3	85	115			
yllium	0.51	0.0020	0.5000	0	103	85	115			
admium	0.49	0.0020	0.5000	0	97.7	85	115			
Chromium	0.48	0.0060	0.5000	0	96.3	85	115			
Cobalt	0.46	0.0060	0.5000	0	92.3	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Nickel	0.46	0.010	0.5000	0	91.2	85	115			
Silver	0.087	0.0050	0.1000	0	86.5	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	95.6	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6689**	RunNo: **6689**
Prep Date:	Analysis Date: **11/5/2012**	SeqNo: **193297** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6689**	RunNo: **6689**
Prep Date:	Analysis Date: **11/5/2012**	SeqNo: **193298** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.0	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**1210860-005EMS**	SampType: **MS**			TestCode: **EPA Method 200.7: Metals**					
Client ID:	**EB101612**	Batch ID: **R6689**			RunNo: **6689**					
Prep Date:		Analysis Date: **11/5/2012**			SeqNo: **193607**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			

Sample ID	**1210860-005EMSD**	SampType: **MSD**			TestCode: **EPA Method 200.7: Metals**					
Client ID:	**EB101612**	Batch ID: **R6689**			RunNo: **6689**					
Prep Date:		Analysis Date: **11/5/2012**			SeqNo: **193608**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130	0.290	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4467**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **4467**	RunNo: **6466**
Prep Date: **10/23/2012**	Analysis Date: **10/24/2012**	SeqNo: **185968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **1209C98-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0010	0.02500	0.005774	102	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	104	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.027	0.0010	0.02500	0	106	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186667** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1210860**

Hall Environmental Analysis Laboratory, Inc.

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186668** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210516-002BMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187056** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	70	130			
Lead	0.029	0.0010	0.02500	0.002703	104	70	130			
Selenium	0.026	0.0010	0.02500	0	102	70	130			

Sample ID **1210544-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.2	70	130			
Arsenic	0.027	0.0010	0.02500	0.001693	101	70	130			
Selenium	0.026	0.0010	0.02500	0.001046	100	70	130			

Sample ID **1210724-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.048	0.0010	0.02500	0.02319	99.5	70	130			

Sample ID **1210724-010AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.004033	101	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.9	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187101** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.2	85	115			
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
ep Date:	Analysis Date: **10/25/2012**	SeqNo: **187102** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187103** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4503**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186274** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4503**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.2	80	120			

Sample ID **1210675-003BMS**	SampType: **ms**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186299** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	83.0	75	125			

Sample ID **1210675-003BMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	80.1	75	125	3.62	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182755** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182756** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			

Sample ID **1210862-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.78	0.10	0.5000	0	157	76.6	110			S
Chloride	8.3	0.50	5.000	4.950	66.3	87.8	111			S
Sulfate	71	0.50	10.00	52.29	185	84.6	122			SE

Sample ID **1210862-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182770** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.78	0.10	0.5000	0	155	76.6	110	0.813	20	S
Chloride	8.2	0.50	5.000	4.950	65.9	87.8	111	0.230	20	S
Sulfate	71	0.50	10.00	52.29	184	84.6	122	0.106	20	SE

Sample ID **1210860-003CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101712**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182775** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.5	76.6	110			
Chloride	4.9	0.50	5.000	0	98.4	87.8	111			
Sulfate	9.6	0.50	10.00	0	96.3	84.6	122			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210860-003CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101712**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182776** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.1	76.6	110	0.572	20	
Chloride	4.9	0.50	5.000	0	98.3	87.8	111	0.126	20	
Sulfate	9.7	0.50	10.00	0	97.3	84.6	122	1.05	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6364**	RunNo: **6364**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183032** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6364**	RunNo: **6364**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183033** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	102	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4397**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182283** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID **LCS-4397**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	52.6	130			
Surr: DNOP	4.3		5.000		86.9	77.6	140			

Sample ID **MB-4404**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182984** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.6	77.6	140			

Sample ID **LCS-4404**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182985** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	77.6	140			

Sample ID **1210819-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183001** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.899		79.7	77.6	140			

Sample ID **1210819-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183002** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		6.148		79.2	77.6	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4430**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183215** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.98		1.000		98.2	79.5	166			

Sample ID **LCS-4430**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.1	74	157			
Surr: DNOP	0.60		0.5000		121	79.5	166			

Sample ID **LCSD-4430**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	91.2	74	157	1.18	23	
Surr: DNOP	0.61		0.5000		122	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4510**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4510**	RunNo: **6518**
Prep Date: **10/24/2012**	Analysis Date: **10/27/2012**	SeqNo: **188108** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.6	84	116			

Sample ID **LCS-4510**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4510**	RunNo: **6518**
Prep Date: **10/24/2012**	Analysis Date: **10/27/2012**	SeqNo: **188109** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		103	84	116			

Sample ID **1210A72-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4510**	RunNo: **6518**
Prep Date: **10/24/2012**	Analysis Date: **10/27/2012**	SeqNo: **188121** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.65	2.267	96.2	70	130			
Surr: BFB	1100		986.2		109	84	116			

Sample ID **1210A72-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4510**	RunNo: **6518**
Prep Date: **10/24/2012**	Analysis Date: **10/27/2012**	SeqNo: **188122** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.61	2.267	96.0	70	130	0.425	22.1	
Surr: BFB	1100		984.3		107	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**	
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	0.00320	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.7		50.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	43.0		50.00		85.9	70	130			
Surr: Dibromofluoromethane	50.0		50.00		100	70	130			
Surr: Toluene-d8	51.0		50.00		102	70	130			

Sample ID **lcs-4419**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.7	1.00	12.50	0	93.9	60	140			
Toluene	10.2	1.00	12.50	0	82.0	60	140			
Chlorobenzene	11.9	1.00	12.50	0	94.9	60	140			
1,1-Dichloroethene	14.5	1.00	12.50	0	116	60	140			
Trichloroethene (TCE)	9.39	1.00	12.50	0	75.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.4		50.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	41.6		50.00		83.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4419**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.8		50.00		93.6	70	130			
Surr: Toluene-d8	46.1		50.00		92.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183508** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
rbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183508** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.2	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.6	70	130			
Toluene	18	1.0	20.00	0	92.4	80	120			
Chlorobenzene	19	1.0	20.00	0	95.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.1	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.1		10.00		81.3	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1210860-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB101712**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183536** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.2	66.8	128			
Toluene	19	1.0	20.00	0	95.7	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0.4600	82.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.5	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.2	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID **1210860-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB101712**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183559** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.6	66.8	128	4.84	16.7	
Toluene	18	1.0	20.00	0	91.3	70	130	4.75	18.7	
Chlorobenzene	19	1.0	20.00	0	95.3	70	130	5.49	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	93.4	70	130	10.5	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.4600	77.0	70	130	6.12	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		84.4	70	130	0	0	
Surr: Toluene-d8	11		10.00		106	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4422** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.7	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	76.9	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	75.3	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.0	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	79.3	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.1	39.1	86.9			
4-Nitrophenol	2.4	0.25	3.330	0	73.5	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	61.6	36.2	80			
Phenol	2.4	0.20	3.330	0	72.5	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	91.6	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		103	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.5	20	131			
Surr: 2-Fluorophenol	2.8		3.330		83.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.6	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.9	25.6	137			
Surr: Phenol-d5	3.0		3.330		89.0	20.3	132			

Sample ID **mb-4422** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

- ' Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.9		3.330		117	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		98.4	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.6	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		109	25.6	137			
Surr: Phenol-d5	3.2		3.330		96.3	20.3	132			

Sample ID **1210858-004Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.659	0	69.3	25.6	142			
4-Chloro-3-methylphenol	2.2	0.50	3.309	0	67.6	63.7	100			
2-Chlorophenol	2.0	0.20	3.309	0	61.7	22.2	126			
1,4-Dichlorobenzene	1.1	0.20	1.659	0	63.6	12.4	115			
2,4-Dinitrotoluene	1.2	0.50	1.659	0	74.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	0.20	1.659	0	65.9	13.9	136			
4-Nitrophenol	2.2	0.25	3.309	0.09121	63.6	36.7	130			
Pentachlorophenol	1.9	0.40	3.309	0	56.5	15.8	113			
Phenol	2.1	0.20	3.309	0	63.9	25.1	124			
Pyrene	1.1	0.20	1.659	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.3	0.20	1.659	0	78.0	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.309		90.3	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.659		90.0	20	131			
Surr: 2-Fluorophenol	2.5		3.309		74.2	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		80.0	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.659		101	25.6	137			
Surr: Phenol-d5	2.8		3.309		84.0	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210858-004Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.681	0	71.3	25.6	142	4.05	22	
4-Chloro-3-methylphenol	2.3	0.50	3.351	0	69.5	63.7	100	4.10	27.3	
2-Chlorophenol	2.3	0.20	3.351	0	68.2	22.2	126	11.4	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.681	0	63.4	12.4	115	1.02	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.681	0	77.0	14.9	142	4.43	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.681	0	75.9	13.9	136	15.3	22.6	
4-Nitrophenol	2.3	0.25	3.351	0.09121	64.9	36.7	130	3.21	20	
Pentachlorophenol	2.0	0.40	3.351	0	59.9	15.8	113	7.18	27.1	
Phenol	2.2	0.20	3.351	0	66.5	25.1	124	5.18	32.2	
Pyrene	1.2	0.20	1.681	0	70.8	35.8	124	4.36	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.681	0	80.5	30	113	4.34	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.351		93.6	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.681		91.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.351		75.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.681		81.4	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.681		96.9	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.351		85.9	20.3	132	0	0	

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

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

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
itroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		89.0	42.9	124			
Surr: 2-Fluorobiphenyl	74		100.0		73.7	40	108			
Surr: 2-Fluorophenol	130		200.0		63.3	23.6	94.8			
Surr: 4-Terphenyl-d14	75		100.0		74.5	41.9	103			
Surr: Nitrobenzene-d5	91		100.0		90.8	42.6	114			
Surr: Phenol-d5	100		200.0		49.9	20.3	74.7			

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **lcs-4411**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184533** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	69.3	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	72.7	46.3	108			
2-Chlorophenol	130	10	200.0	0	65.3	38	99.3			
1,4-Dichlorobenzene	62	10	100.0	0	61.6	30.8	80.6			
2,4-Dinitrotoluene	73	10	100.0	0	73.1	46.1	117			
N-Nitrosodi-n-propylamine	73	10	100.0	0	73.0	39.3	110			
4-Nitrophenol	80	10	200.0	0	39.8	29.8	67			
Pentachlorophenol	110	20	200.0	0	55.3	32.2	95.7			
Phenol	78	10	200.0	0	39.2	27	64.8			
Pyrene	72	10	100.0	0	71.5	44.7	97.3			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.7	36.6	86.7			
Surr: 2,4,6-Tribromophenol	170		200.0		87.4	42.9	124			
Surr: 2-Fluorobiphenyl	81		100.0		81.3	40	108			
Surr: 2-Fluorophenol	120		200.0		60.0	23.6	94.8			
Surr: 4-Terphenyl-d14	74		100.0		74.1	41.9	103			
Surr: Nitrobenzene-d5	85		100.0		84.8	42.6	114			
Surr: Phenol-d5	100		200.0		50.3	20.3	74.7			

Sample ID **lcsd-4411**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184535** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	43.3	92	10.3	25	
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	46.3	108	7.30	32.7	
2-Chlorophenol	120	10	200.0	0	59.8	38	99.3	8.77	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.8	30.8	80.6	13.6	20	
2,4-Dinitrotoluene	70	10	100.0	0	70.2	46.1	117	4.16	29.9	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.8	39.3	110	11.9	23.1	
4-Nitrophenol	75	10	200.0	0	37.7	29.8	67	5.34	40.5	
Pentachlorophenol	110	20	200.0	0	54.1	32.2	95.7	2.07	37.3	
Phenol	68	10	200.0	0	34.1	27	64.8	14.1	20	
Pyrene	68	10	100.0	0	67.9	44.7	97.3	5.13	26.5	
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	36.6	86.7	8.58	27.2	
Surr: 2,4,6-Tribromophenol	170		200.0		87.5	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	72		100.0		71.5	40	108	0	0	
Surr: 2-Fluorophenol	110		200.0		53.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.9	103	0	0	
Surr: Nitrobenzene-d5	77		100.0		76.5	42.6	114	0	0	
Surr: Phenol-d5	90		200.0		45.1	20.3	74.7	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4629**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **4629**	RunNo: **6634**
Prep Date: **11/1/2012**	Analysis Date: **11/1/2012**	SeqNo: **191517** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-4629**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **4629**	RunNo: **6634**
Prep Date: **11/1/2012**	Analysis Date: **11/1/2012**	SeqNo: **191518** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID **1210859-003CMS**	SampType: **MS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **4629**	RunNo: **6634**
Prep Date: **11/1/2012**	Analysis Date: **11/1/2012**	SeqNo: **191520** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1609	0.02890	103	75	125			

Sample ID **1210859-003CMSD**	SampType: **MSD**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **4629**	RunNo: **6634**
Prep Date: **11/1/2012**	Analysis Date: **11/1/2012**	SeqNo: **191521** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.22	0.033	0.1651	0.02890	113	75	125	10.5	20	

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210860**

Hall Environmental Analysis Laboratory, Inc.

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-4440** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	0.64	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4440** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0.6605	96.6	80	120			
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	103	80	120			
Cadmium	25	0.10	25.00	0	98.8	80	120			
Chromium	25	0.30	25.00	0	99.0	80	120			
Cobalt	24	0.30	25.00	0	95.6	80	120			
Lead	24	0.25	25.00	0	96.6	80	120			
Manganese	24	0.10	25.00	0.05400	96.6	80	120			
Nickel	24	0.50	25.00	0	94.2	80	120			
Selenium	24	2.5	25.00	0	94.1	80	120			
Silver	6.0	0.25	5.000	0.6425	106	80	120			B
Vanadium	25	2.5	25.00	0	102	80	120			
Zinc	24	2.5	25.00	0	97.3	80	120			

Sample ID **1210771-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.93	2.265	83.0	75	125			
Cadmium	20	0.10	24.93	0.03505	80.0	75	125			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210771-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	25	0.30	24.93	3.270	86.6	75	125			
Selenium	17	2.5	24.93	0	68.1	75	125			S

Sample ID **1210771-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186849** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.96	2.265	81.7	75	125	1.34	20	
Cadmium	19	0.10	24.96	0.03505	77.2	75	125	3.39	20	
Chromium	24	0.30	24.96	3.270	84.2	75	125	2.39	20	
Selenium	15	2.5	24.96	0	61.4	75	125	10.1	20	S

Sample ID **MB-4440** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID **LCS-4440** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.7	0.25	5.000	0	113	80	120			

Sample ID **1210771-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **189043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.3	0.25	4.987	0	85.5	75	125			

Sample ID **1210771-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **189044** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.0	0.25	4.992	0	80.9	75	125	5.39	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-4440**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4440**	RunNo: **6670**
Prep Date: **10/22/2012**	Analysis Date: **11/2/2012**	SeqNo: **192431** Units: **mg/Kg**

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

Sample ID **LCS-4440**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4440**	RunNo: **6670**
Prep Date: **10/22/2012**	Analysis Date: **11/2/2012**	SeqNo: **192432** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	109	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b6**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184074** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.8	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.43	0.050	0.5000	0	86.2	85	115			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184078** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.915	82.1	70	130			
Surr: BFB	46		50.00		91.6	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184079** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.8	0.25	2.500	1.915	76.4	70	130	3.70	20	
Surr: BFB	51		50.00		102	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6402**	RunNo: **6402**
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.5		10.00		95.0	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6402**	RunNo: **6402**
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	85	115			
Surr: BFB	9.6		10.00		95.9	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210860

Received by/date: AT 10/18/12

Logged By: **Michelle Garcia** 10/18/2012 8:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/18/2012 9:43:44 AM Michelle Garcia

Reviewed By: 10/18/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [illegible]
Sample Temperature: [illegible]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/17/12	1015	SOIL	SWMU 14-24 (0-0.5')	2 VIALS	5OB1	-001										X						
				2 VIALS	MEOH											X						
	↓			3 JARS	—											X	X	X	X			
	1030		SWMU 14-24 (1.5-2')	2 VIALS	5OB1	-002										X						
				2 VIALS	MEOH											X						
	↓	↓	↓	3 JARS	—											X	X	X	X			
	1100	W	EB101712	6 VOA	HCL & NEAT	-003										X						
				1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
↓	↓	↓	↓	1 PLASTIC	NaOH														X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/18/12	0753	[signature]	[signature]	10/18/12	0753
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: Yes
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/16/12	0900	GW	SWMU 14 -	6 VOA	HCL & NEAT	-004										X						
			OBP19-1GW	1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														XX			
				1 PLASTIC	NaOH														X			
	1720	W	EB101612	6 VOA	HCL & NEAT	-005										X						
				1 AMBER	—												X					
				1 PLASTIC	—														XX			
				1 PLASTIC	HNO_3														XX			
				1 PLASTIC	NaOH														X			
10/16	—	W	TRIP BLANK	3 VOA	HCL	-006										X						

Date: 10/17/12 Time: 0820 Relinquished by:
Date: Time: Relinquished by:

Received by:
Date: 10/18/12 Time: 0800
Received by:
Date: Time:

Remarks:

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

APPENDIX G

Summary of EPA/NMED/RCRA Activity

2012 Major Refinery Activities and Events

February	The WQCC Discharge Permit for GW-32 (Gallup Refinery) was rescinded by OCD.
April	The connection of the storm water management system to the new Waste Water Treatment System and commission and startup of the DGF and MPPE units took place on April 29.
August	The annual groundwater sampling was conducted.
September	NMED HWB/EPA conducted a Compliance Evaluation Inspection on September 11-12.
Sept/Oct	A major refinery turnaround (TA) took place. Major upgrades were conducted on the electrical system and the flare system. The electrical distribution system upgrade and load capacity expansion will provide immediate and long term project needs and condition monitoring. This upgrade adds reliability features critical to assuring uninterrupted electrical power to the refinery. The top of the stripper tower in the DHT unit was replaced. This TA was unique in that there were almost as many technical improvements as repair items which included an electrostatic precipitator and a new CO boiler which lowered particulate, NOx and CO emissions off the FCC. The trays in the majority of the distillation towers were upgraded, installed a new section on the crude heater (CH-2), upgraded desalters and modified the catalyst system in the FCC Unit.
Year 2012	Two new bio-diesel tanks were constructed which have not been placed into service yet.

APPENDIX H

Summary of Leaks, Spills, and Releases

SPILL SUMMARY REPORT – 2012

4/12/12	An estimated 17 barrels of oily waste water overflowed at the NAPIS due to mechanical malfunction. The flapper in the check valve came loose causing the benzene pump to fail causing the waste water to overflow. A vacuum truck was dispatched to vacuum up standing water and a portable pump was installed to also pump out water into the sewer system. All water was removed and remediation procedures started on the contaminated soil. Spill was reported to appropriate agencies and Form C-141 was filed.
8/10/12	In the NHT unit, a pump (H-P3D) seal malfunctioned discharging naphtha which caused a small fire to ignite. Western's Emergency Response Team was dispatched to extinguish the fire. It is estimated that 10 barrels of naphtha was consumed in the fire and contained on a concrete slab which drains into the waste water sewer system. Spill and fire was reported to appropriate agencies and Form C-141 was also filed.
8/16/12	At the API area, the flare tip ignited due to a high level in the hydrocarbon blowdown drum located in the operation unit and also a high level in the hydrocarbon knockout drum located at the API area. Approximately 6 to 12 barrels of liquid hydrocarbon was consumed in the fire. Western's Emergency Response Team was dispatched to extinguish the fire. Fire and spill was reported to appropriate agencies and Form C-141 was filed.
9/12/12	In the SATS unit approximately 6 to 7 barrels of diluted liquid KOH was sprayed onto the ground and equipment when the hose used to depressure the tower malfunctioned. The hose was draining into a sewer cup when the hose malfunctioned, spraying KOH liquid into the concrete containment and onto the ground creating a vapor cloud. Some personnel were exposed to the vapor cloud and were immediately dispatched to the local hospital. Area affected was sprayed down with water and drained into the sewer system. The remaining liquid KOH was removed via vacuum truck and soil was removed. Spill and release was reported to appropriate agencies and Form C-141 was filed.
9/23/12	At the API area, the benzene strippers overflowed through the fans and vent stack. Approximately 80 barrels of liquid is estimated to have been released to the containment area as well as to the ground surface. Standing water was vacuumed up and soil samples collected. Area was cleaned up. Appropriate agencies were notified and a Follow up to the Final C-141 report was filed.
11/10/12	Evaporation Pond 1 overflowed on the northwest corner into evaporation pond 2. Approximately 40 barrels of pond water is estimated to have overflowed from pond 1. Form C-141 was filed and appropriate agencies notified.

Attached are copies of all the Form C-141 filed for 2012.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining	Contact: Beck Larsen
Address I-40 / Exit 39, Jamestown, NM 87347	Telephone No: (505) 722-0258
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery

Surface Owner:	Mineral Owner:	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29' 022" Longitude 108° 24' 024"

NATURE OF RELEASE

Type of Release API Wastewater	Volume of Release ~17 bbls (est 715 gal) (oily water w/slight sheen)	Volume Recovered ~17 bbls (est 715 gal) (oily wastewaterw/ slight sheen)
Source of Release: API Overflow	Date and Hour of Occurrence 4/12/2012; 1330 hrs (1:30 PM)	Date and Hour of Discovery 10/02/2011; 1540 hrs (3:40 PM)
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ruth Horowitz, NMED HWB (Msg @ 4/13/2012, 12:25 hrs) Kristen Van Horn, NMED HWB (Msg @4/13/2012, 12:28 hrs) Brandon Powell, NMED HWB (telephone @4/13/2012, 12:34 hrs) Carl J Chavez, OCD (Msg @4/13/2012, 12:38 hrs)	
Whom? Beck Larsen	Date and Hour NMED (HWB, (Msgs 4/13/2012 @ 1225; 1228 hrs) OCD (telephone 4/13/2012 @ 12:34 hrs; Msg 4/13/2012 @ 12:28 hrs)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.* At the time, the new API was operating properly with no issues. At 1:30PM on 4/12/2012, the flapper came off the check valve causing the benzene pump to fail. The pump failure cause the API to back up where the flow out of the API (Q~0 gpm) was much less that the flow in (Qmax=500 gpm). API Wastewater overflowed from the API spouts on each bay onto the ground.

Describe Area Affected and Cleanup Action Taken.* Immediately after the flapper came off of the check valve causing the benzene pump to fail causing the API to overflow, a second pump was put online. It was estimated that about 17 bbls of oily wastewater overflowed from the new API area to the ground to several depression areas near the API. The onsite vacuum truck was immediately dispatched to cleanup the oily wastewater. All wastewater was removed by about 17:00 hrs (4/12/2012). The wastewater only had an oily sheen with no measurable quantity on oil in the wastewater. Remediation is in progress near the new API and affected areas in order to cleanup the contaminate soil.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen	Approved by District Supervisor:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 4/16/2012 Phone: (505) 722-0258	

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining	Contact: Ed Riege
Address: I-40 / Exit 39, Jamestown, NM 87347	Telephone No.: (505) 722-0217
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35°29'22" **Longitude** 108°24'24"

NATURE OF RELEASE

Type of Release Naphtha (consumed in fire)	Volume of Release ~ 10 bbls	Volume Recovered N/A
Source of Release NHT Reboiler Circulating Pump (H-P3D)	Date and Hour of Occurrence 8/10/2012 @ 2010 hrs	Date and Hour of Discovery 8/10/2012 @ 2010 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD- Carl Chavez	
By Whom? Ed Riege within 24 hours of fire	Date and Hour 08/11/12; 1724 hrs	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*A seal blew out on the west NHT Reboiler Circulating Pump (H-P3D) discharging naphtha from pump casing causing a small fire to ignite. Western Emergency Response Team (ERT) was dispatched to the scene to extinguish fire. Fire water was used to extinguish all flames. It was estimated that approximately 10 bbls of Naphtha was consumed in the fire. Any fire water or naphtha was collected on a concrete slab that drains to the Wastewater Treatment System.

Describe Area Affected and Cleanup Action Taken.* Any contaminants (Naphtha and fire water) were collected and contained in the NHT area via a concrete containment. All contaminants were drained from the containment area are via a sump draining to the Wastewater Treatment System.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by District Supervisor:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 8/13/2012 Phone: (505) 722-0217		

Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining	Contact: Ed Riege
Address: I-40 / Exit 39, Jamestown, NM 87347	Telephone No.: (505) 722-0217
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35°29'22" Longitude 108°24'24"

NATURE OF RELEASE

Type of Release Naphtha (consumed in fire)	Volume of Release 6 –12 bbls (est liquid volume consumed in fire)	Volume Recovered N/A
Source of Release Hyrocarbon Blowdown Tank/Flare Fire	Date and Hour of Occurrence 8/16/2012 @ 1023hrs	Date and Hour of Discovery 8/16/2012 @ 1038 hrs
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? OCD- Carl Chavez/Brandon Powell; NMED-Kathy Palmer (msg)	
By Whom? Beck Larsen within 1 hours of fire	Date and Hour 08/16/12; 1120 hrs; 1157	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.*Incident was due to a high level in the Hydrocarbon Blowdown drum (Operation) and to a high level in the Hydrocarbon Knockout drum at the flare (API Area). Liquid hydrocarbon came out of the flare tip and ignited. The on-site Fire Department and Emergency Response Team (ERT) was dispatched immediately.

Describe Area Affected and Cleanup Action Taken.* The on-site Fire Department used their Pumper Trucks to extinguish the flames.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by District Supervisor:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 8/28/2012 Phone: (505) 722-0217		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining	Contact: Beck Larsen
Address: I-40 / Exit 39, Jamestown, NM 87347	Telephone No.: (505) 722-0258
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35°29'22" **Longitude** 108°24'24"

NATURE OF RELEASE

Type of Release Potassium Hydroxide (KOH) (20% Diluted Solution)	Volume of Release ~280 gal (~555 lbs KOH)(~6-7 bbls)	Volume Recovered Unknown
Source of Release Hose used for Washing KOH from KOH Tower	Date and Hour of Occurrence 9/12/2012 @ 1530 hrs	Date and Hour of Discovery 9/12/2012 @ 1530 hrs
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

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

Describe Cause of Problem and Remedial Action Taken.* Note that the KOH solution was in a diluted form of < 20% by weight (estimated). The incident occurred when a 1 inch hose that was being used to wash out the KOH Tower, blew out of the sewer cup due to an ice plug that formed at the end of the hose. The hose whipped around for a few seconds before the valve was shut off causing a small vapor cloud to be released in the Treater and Gas Con areas. The wind at the time was blowing from a north-north-east direction. There were several persons downwind of the vapor cloud that were exposed to fumes from the KOH vapors. The KOH spray was primarily on the concrete slab with some that came in contact with the ground.

Describe Area Affected and Cleanup Action Taken.* The KOH spray was primarily on the concrete slab; however, some KOH solution did get on the ground. It was estimated that an area of 5 ft by 10 ft section (50 sq ft) of soil was affected. The KOH that was on the slab was either removed via vacuum truck or washed to the process sewer. Samples were collected and submitted to an Environmental Laboratory for TCLP analysis. A Work Order has been written and contaminated soil has been removed for disposal at an approved disposal facility in accordance with all applicable regulations.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by District Supervisor:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: thurman.larsen@wnr.com	Conditions of Approval:	Attached ☐
Date: 9/14/2012 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

Follow Up to

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Western Refining Southwest	Contact: Cheryl Johnson
Address: I-40 Exit 39, Jamestown, NM 87347	Telephone No. (505) 722-3833
Facility Name: Gallup Refinery	Facility Type: Oil Refinery

Surface Owner: Western Refining	Mineral Owner: Western Refining	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	23 & 33	15N	15W					McKinley

Latitude: 35°29'22" **Longitude** 108°25'24"

NATURE OF RELEASE

Type of Release: Spill	Volume of Release: < 80 BBL	Volume Recovered: 4000 gals
Source of Release: Benzene Strippers (Z-84-V5 & Z-84-V4)	Date and Hour of Occurrence: 9-23-12, 0400 hours	Date and Hour of Discovery 9-23-12, 0400 hours
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Carl Chavez, NMED OCD, District 3 Supervisor, Kristen Van Horn HWB	
By Whom? Cheryl Johnson and Ed Riege	Date and Hour: 9/23/12: 1330 hours	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* Not Applicable

Describe Cause of Problem and Remedial Action Taken.* On 9-23-12 at approximately 0400 hours, the benzene strippers were discovered to be overflowing through the fans and out the vent stack. Due to increased flow and foaming issues, the benzene strippers backed up causing the overflow through the fans and the vent stack. The overflow went into the concrete pad and overflowed onto the ground on all four sides of the concrete containment berm and also a portion into aeration lagoon 1. Operator decreased flow to the benzene strippers and maintenance department was called out immediately to begin vacuum and clean up procedures.

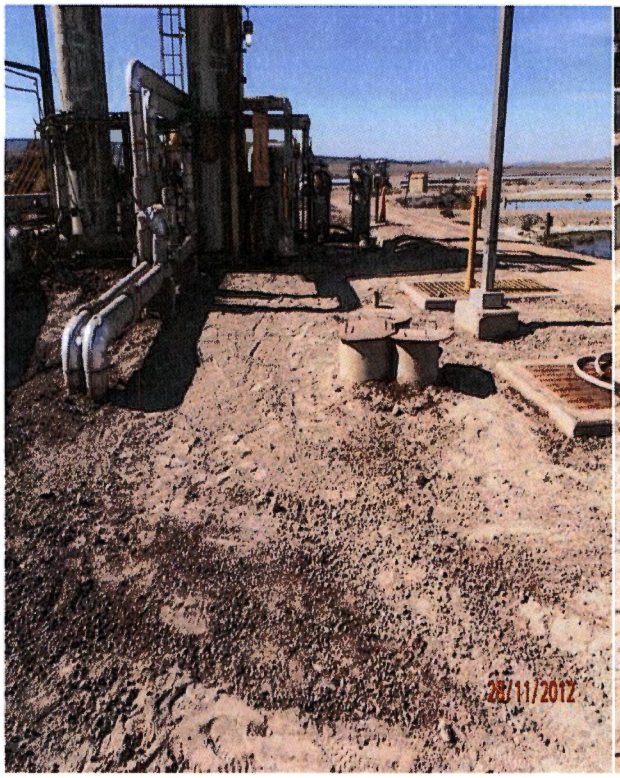
Describe Area Affected and Cleanup Action Taken.*
On the northeast side of the benzene stripper pad, waste water overflowed out of the concrete containment berm onto the ground in an area estimated to be 10 x 30 feet section was saturated and had standing water. On the west side of the concrete containment berm, an area approximately 10 x 10 feet section was also saturated with water. On the south side of the concrete berm there was also a small puddle of water. On the north side of the concrete containment berm, waste water overflowed onto the ground and flowed into aeration lagoon 1(amount unknown). All 5 aerators were on-line in both lagoons 1 and lagoon 2. Upon discovery of the overflow maintenance department was called immediately to begin vacuuming up the overflow via vacuum truck in all areas affected. A trash pump was also in service pumping out the containment area. As of 1230 hours, all the standing water had been vacuumed up by the vacuum truck. On 9-24-12 soil samples were collected from spill site and the contaminated soil will be excavated and disposed of in accordance with applicable rules and regulations.
11-28-12: Area affected was cleaned up around the benzene strippers. Approximately 25 cubic yards of stained soil was removed and placed in a roll-off for disposal offsite. A copy of the lab analysis and pictures of the clean up are also attached to this follow up report as Attachment A.

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

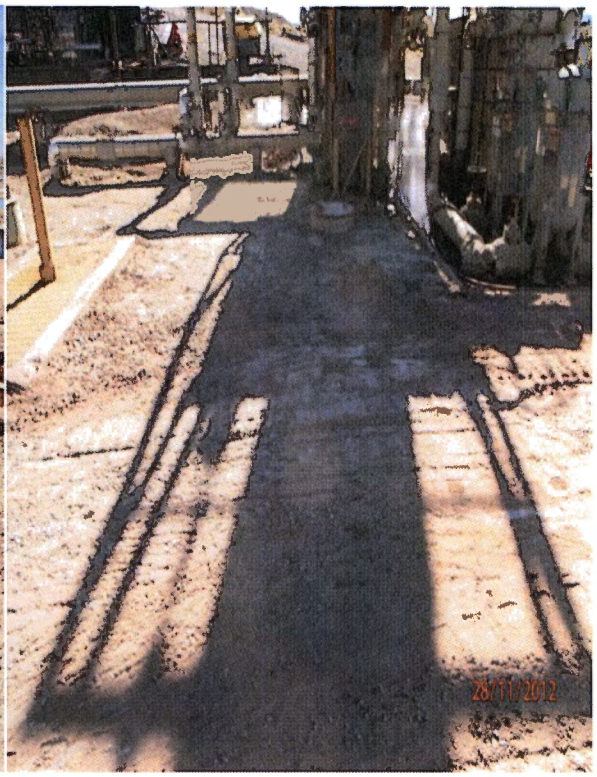
Signature:	OIL CONSERVATION DIVISION	
Printed Name: Ed Riege	Approved by Environmental Specialist:	
Title: Environmental Manager	Approval Date:	Expiration Date:
E-mail Address: ed.riege@wnr.com	Conditions of Approval:	Attached ☐
Date: 11-28-12 Phone: 505-722-0217		

* Attach Additional Sheets If Necessary

ATTACHMENT A



East side of the benzene strippers



North-east side of the benzene strippers

West side of the benzene strippers

East side of the benzene strippers

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 20, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: BZ Strip Soil Confirmation OrderNo.: 1212159

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/3/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1212159**
Date Reported: **12/20/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strip Soil Confirmation
Lab ID: 1212159-001 **Matrix:** SOIL

Client Sample ID: BZ Strip-Soil Confirmation
Collection Date: 11/30/2012 12:50:00 PM
Received Date: 12/3/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	830	200		mg/Kg	20	12/6/2012 11:40:03 AM
Surr: DNOP	0	72.4-120	S	%REC	20	12/6/2012 11:40:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: BFB	94.0	84-116		%REC	1	12/6/2012 1:48:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Toluene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: 4-Bromofluorobenzene	95.4	80-120		%REC	1	12/6/2012 1:48:10 PM
MERCURY, TCLP						Analyst: **TMG**
Mercury	ND	0.020		mg/L	1	12/13/2012 3:39:35 PM
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**
Arsenic	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Barium	ND	100		mg/L	1	12/10/2012 10:19:34 AM
Cadmium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Chromium	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Lead	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Selenium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Silver	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
VOLATILES BY 8260B/1311						Analyst: **RAA**
Benzene	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
2-Butanone	ND	10		mg/L	1	12/14/2012 5:48:57 AM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Chlorobenzene	ND	100		mg/L	1	12/14/2012 5:48:57 AM
Chloroform	ND	6.0		mg/L	1	12/14/2012 5:48:57 AM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/14/2012 5:48:57 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Vinyl chloride	ND	0.20		mg/L	1	12/14/2012 5:48:57 AM
Surr: 1,2-Dichloroethane-d4	89.4	69.9-130		%REC	1	12/14/2012 5:48:57 AM
Surr: 4-Bromofluorobenzene	102	71.2-123		%REC	1	12/14/2012 5:48:57 AM
Surr: Dibromofluoromethane	85.9	73.9-134		%REC	1	12/14/2012 5:48:57 AM
Surr: Toluene-d8	96.0	81.9-122		%REC	1	12/14/2012 5:48:57 AM

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 121206040
Project Name: 1212159

Analytical Results Report

Sample Number 121206040-001 **Sampling Date** 11/30/2012 **Date/Time Received** 12/6/2012 10:45 AM
Client Sample ID 1212159-001C / BZ STRIP-SOIL CONFIRMATION **Sampling Time** 12:50 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	0.378	mg/Kg	0.3	12/12/2012	CRW	SW846 CH7	
Ignitability	Negative			12/7/2012	JWC	EPA 1030	
pH	8.19	ph Units		12/7/2012	ETL	EPA 9045	
Reactive sulfide	75.3	mg/kg	27	12/13/2012	JTT	SW846 CH7	
%moisture	8.5	Percent		12/12/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5122** SampType: **MBLK** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **PBS** Batch ID: **5122** RunNo: **7319**

Prep Date: **12/5/2012** Analysis Date: **12/6/2012** SeqNo: **212356** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.0	72.4	120			

Sample ID **LCS-5122** SampType: **LCS** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **5122** RunNo: **7319**

Prep Date: **12/5/2012** Analysis Date: **12/6/2012** SeqNo: **212357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.2	47.4	122			
Surr: DNOP	4.2		5.000		84.5	72.4	120			

Sample ID **1212091-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **5122** RunNo: **7319**

Prep Date: **12/5/2012** Analysis Date: **12/6/2012** SeqNo: **212656** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	790	10	51.98	567.8	424	12.6	148			S
Surr: DNOP	6.1		5.198		117	72.4	120			

Sample ID **1212091-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **BatchQC** Batch ID: **5122** RunNo: **7319**

Prep Date: **12/5/2012** Analysis Date: **12/6/2012** SeqNo: **212678** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	9.9	49.60	567.8	663	12.6	148	12.9	22.5	S
Surr: DNOP	7.0		4.960		141	72.4	120	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5125**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.7	84	116			

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	74	117			
Surr: BFB	930		1000		92.5	84	116			

Sample ID **1212182-003AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213071** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.08	0	88.5	70	130			
urr: BFB	920		963.4		95.3	84	116			

Sample ID **1212182-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.25	0	83.0	70	130	5.67	22.1	
Surr: BFB	890		969.9		91.4	84	116	0	0	

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7362**
Prep Date: **12/5/2012**	Analysis Date: **12/7/2012**	SeqNo: **214058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.7	74	117			
Surr: BFB	930		1000		92.7	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5125**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213118** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213119** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.6	76.3	117			
Toluene	0.99	0.050	1.000	0	99.0	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.0	0.10	3.000	0	100	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **1212159-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.049	0.9709	0	104	67.2	113			
Toluene	1.0	0.049	0.9709	0	105	62.1	116			
Ethylbenzene	1.0	0.049	0.9709	0.004829	107	67.9	127			
Xylenes, Total	3.1	0.097	2.913	0	107	60.6	134			
Surr: 4-Bromofluorobenzene	0.95		0.9709		97.6	80	120			

Sample ID **1212159-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213124** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9699	0	103	67.2	113	1.58	14.3	
Toluene	1.0	0.048	0.9699	0	105	62.1	116	0.511	15.9	
Ethylbenzene	1.0	0.048	0.9699	0.004829	106	67.9	127	0.756	14.4	
Xylenes, Total	3.1	0.097	2.910	0	106	60.6	134	0.915	12.6	
Surr: 4-Bromofluorobenzene	0.97		0.9699		99.6	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **mb-5145** SampType: **MBLK** TestCode: **Volatiles by 8260B/1311**

Client ID: **PBS** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		89.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		100	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		86.5	73.9	134			
Surr: Toluene-d8	0.20		0.2000		98.1	81.9	122			

mple ID **lcs-5145** SampType: **LCS** TestCode: **Volatiles by 8260B/1311**

Client ID: **LCSS** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.30	0.4000	0	102	51.1	171			
Chlorobenzene	0.41	0.30	0.4000	0	104	36.1	191			
1,1-Dichloroethene	0.43	0.30	0.4000	0	107	49.1	162			
Trichloroethene (TCE)	0.33	0.30	0.4000	0	83.0	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		90.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		104	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		83.2	73.9	134			
Surr: Toluene-d8	0.19		0.2000		96.0	81.9	122			

Sample ID **1212159-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **BZ Strip-Soil Confir** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	51.1	171			
Chlorobenzene	0.42	0.30	0.4000	0	105	36.1	191			
1,1-Dichloroethene	0.42	0.30	0.4000	0	106	49.1	162			
Trichloroethene (TCE)	0.34	0.30	0.4000	0	84.3	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		92.0	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		101	71.2	123			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **1212159-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **BZ Strip-Soil Confir** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.18		0.2000		87.7	73.9	134			
Surr: Toluene-d8	0.19		0.2000		95.1	81.9	122			

Sample ID **1212159-001amsd** SampType: **MSD** TestCode: **Volatiles by 8260B/1311**

Client ID: **BZ Strip-Soil Confir** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217714** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	99.3	51.1	171	1.04	0	
Chlorobenzene	0.43	0.30	0.4000	0	107	36.1	191	2.30	0	
1,1-Dichloroethene	0.40	0.30	0.4000	0	100	49.1	162	4.88	0	
Trichloroethene (TCE)	0.32	0.30	0.4000	0	80.7	41.2	166	4.33	0	
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		92.8	69.9	130	0	0	
Surr: 4-Bromofluorobenzene	0.21		0.2000		103	71.2	123	0	0	
Surr: Dibromofluoromethane	0.17		0.2000		84.9	73.9	134	0	0	
Surr: Toluene-d8	0.20		0.2000		98.6	81.9	122	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5169**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214402** Units: **mg/L**

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

Sample ID **LCS-5169**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0.02585	107	80	120			
Barium	ND	100	0.5000	0	100	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	99.6	80	120			
[illegible]	ND	5.0	0.5000	0	99.0	80	120			
Selenium	ND	1.0	0.5000	0	101	80	120			
Silver	ND	5.0	0.1000	0.004430	102	80	120			

Sample ID **1212007-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **BatchQC**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	114	75	125			
Cadmium	ND	1.0	0.5000	0	103	75	125			
Chromium	ND	5.0	0.5000	0.005700	95.1	75	125			
Lead	ND	5.0	0.5000	0	92.2	75	125			
Selenium	ND	1.0	0.5000	0	84.2	75	125			
Silver	ND	5.0	0.1000	0	106	75	125			

Sample ID **1212007-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **BatchQC**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	112	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	102	75	125	0	20	
Chromium	ND	5.0	0.5000	0.005700	93.0	75	125	0	20	
Lead	ND	5.0	0.5000	0	90.9	75	125	0	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **1212007-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	1.0	0.5000	0	86.7	75	125	0	20	
Silver	ND	5.0	0.1000	0	105	75	125	0	20	

Sample ID **1212007-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214427** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	500	0.5000	1.240	94.3	75	125			

Sample ID **1212007-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214428** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	500	0.5000	1.240	93.3	75	125	0	20	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1212159**

Received by/date: MG 12/03/12

Logged By: **Ashley Gallegos** **12/3/2012 1:20:00 PM** AG

Completed By: **Ashley Gallegos** **12/4/2012 5:26:44 PM** AG

Reviewed By: 12/05/12

Chain of Custody

1.	Were seals intact?	Yes ✔	No	Not Present
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505 - 722-3833

Email or Fax#: 505-863-0930

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard X Rush

Project Name:
BZ Strip Soil Confirmation

Project #:
Clean up - BZ Strip Soil - Confirmation

Project Manager:
Cheryl Johnson
Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1212159	TPH 8015B DRO/GRO	8021B (BTEX + MTBE) 8260 12/05/12	8260B - TCLP	RCI	METALS RCRA 8 - TCLP	Air Bubbles (Y or N)
11/30/2012	1250	Soil	Bz Strip-Soil Confirmation	5-4oz jar	None	-001	X	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/30/12	1400				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				12/03/12	1320

Remarks:

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

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

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

Surface Owner	Mineral Owner	API No.

LOCATION OF RELEASE

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

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

NATURE OF RELEASE

Type of Release: Overflow of Evaporation Pond 1	Volume of Release: Approximately 40 bbls (water)	Volume Recovered: Approximately 5 bbls (water)
Source of Release: Evaporation Pond 1	Date and Hour of Occurrence 11/10/12 9 am	Date and Hour of Discovery 11/10/12 1:00 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? NMED, OCD Brandon Christiansen- left message (866) 428-0535	
By Whom? Loretta Morgan	Date and Hour: 11/11/12 9:57 am	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

On Saturday 11/10/12 at approximately 0 pm, Evaporation Pond 1 was found overflowing on the northwest corner to Evaporation Pond 2. Offiste Operations opened the transfer valve from Evaporation Pond 1 to Evaporation Pond 2 to 100%.

On Sunday 11/11/12 at approximately 3 am, Offsite found Evaporation Pond 1 had started to overflow again. Transfer hoses were installed to help keep water from overflowing the dikes. Maintenance was called out to build up the dike on Evaporation Pond 1.

It was determined that the transfer valve was partially plugged not allowing full flow from Evaporation Pond 1 to Evaporation Pond 1, hence, causing the overflow

Describe Area Affected and Cleanup Action Taken.*

Overflow from Evaporation Pond 1 flowed to evaporation Pond 2.

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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Beck Larsen:	Approved by Environmental Specialist:
Title: Environmental Engineer	Approval Date: / Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval: / Attached ☐
Date: 11/20/12 Phone: (505) 722-3833	

* Attach Additional Sheets If Necessary

APPENDIX I

Perimeter Inspections

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 01/10/2012

NOTE ANY FINDINGS: No Issues found at time of inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

Reference: OCD Discharge Permit (GW-032) (Section #20)
(August 23, 2007, Revision of March 12, 2008

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 01/23/2012

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 02/08/2012

NOTE ANY FINDINGS: No Issues found at time of inspection. / purge water drums

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 02/23/2012

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

Reference: OCD Discharge Permit (GW-032) (Section #20)
(August 23, 2007, Revision of March 12, 2008

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 03/09/2012

NOTE ANY FINDINGS: No Issues found.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

Reference: OCD Discharge Permit (GW-032) (Section #20)
(August 23, 2007, Revision of March 12, 2008

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 3/20/2012

NOTE ANY FINDINGS: No Issues

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 04/10/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 04/18/2012

NOTE ANY FINDINGS: No Issues found at time of inspection. ; purge water drums

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

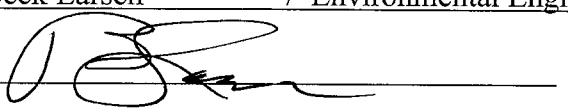
WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 05/10/2012

NOTE ANY FINDINGS: No Issues found at time of inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector: 

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 05/22/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 06/11/2012

NOTE ANY FINDINGS: Purge water drums are around site in several outer locations.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

Reference: OCD Discharge Permit (GW-032) (Section #20)
(August 23, 2007, Revision of March 12, 2008

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 06/19/2012

NOTE ANY FINDINGS: Purge water drums are around site in several outer locations.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 07/09/2012

NOTE ANY FINDINGS: No Issues found at time of inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 07/18/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 08/09/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 08/21/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

WESTERN REFINING
OCD DISCHARGE PERMIT (GW-032)
BI-MONTHLY PERIMETER INSPECTION

Instructions: Inspection shall be conducted on a bimonthly basis or as needed in accordance with OCD Discharge Permit (GW-032)(Section #20)(Revision of: March 12,2008).The inspection is to focus on hydrocarbon staining or any release that could potentially result in contamination leaving the property boundaries.

DATE OF INSPECTION: 09/26/2012

NOTE ANY FINDINGS: No Issues Found at time of Inspection; Units shut down and construction around site due to Turnaround Activities.

Print Name / Title:: Beck Larsen / Environmental Engineer

Signature of Inspector:

APPENDIX J

Temporary Land Farm Analytical Data

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 23, 2012

Ed Riege
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: OCD Central Landfarm Semiannual Sampling OrderNo.: 1203888

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 10 sample(s) on 3/23/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203888**
Date Reported: **4/23/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-001 **Matrix:** SOIL

Client Sample ID: CentralOCD-01-032212
Collection Date: 3/22/2012 11:45:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	3/27/2012 11:47:34 PM
Toluene	ND	0.047		mg/Kg	1	3/27/2012 11:47:34 PM
Ethylbenzene	ND	0.047		mg/Kg	1	3/27/2012 11:47:34 PM
Xylenes, Total	ND	0.095		mg/Kg	1	3/27/2012 11:47:34 PM
Surr: 4-Bromofluorobenzene	93.9	80-120		%REC	1	3/27/2012 11:47:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	210	7.5		mg/Kg	5	4/4/2012 12:01:15 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-002 **Matrix:** SOIL

Client Sample ID: CentralOCD-02-032212
Collection Date: 3/22/2012 11:00:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	3/28/2012 12:16:19 AM
Toluene	ND	0.048		mg/Kg	1	3/28/2012 12:16:19 AM
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2012 12:16:19 AM
Xylenes, Total	ND	0.095		mg/Kg	1	3/28/2012 12:16:19 AM
Surr: 4-Bromofluorobenzene	94.0	80-120		%REC	1	3/28/2012 12:16:19 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	200	7.5		mg/Kg	5	4/4/2012 12:38:30 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-003 **Matrix:** SOIL

Client Sample ID: CentralOCD-03-032212
Collection Date: 3/22/2012 10:05:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/28/2012 12:45:01 AM
Toluene	ND	0.050		mg/Kg	1	3/28/2012 12:45:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	3/28/2012 12:45:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	3/28/2012 12:45:01 AM
Surr: 4-Bromofluorobenzene	93.3	80-120		%REC	1	3/28/2012 12:45:01 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	210	30		mg/Kg	20	4/4/2012 1:28:08 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-004 **Matrix:** SOIL

Client Sample ID: CentralOCD-04-032212
Collection Date: 3/22/2012 9:30:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	3/28/2012 1:13:42 AM
Toluene	ND	0.048		mg/Kg	1	3/28/2012 1:13:42 AM
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2012 1:13:42 AM
Xylenes, Total	ND	0.097		mg/Kg	1	3/28/2012 1:13:42 AM
Surr: 4-Bromofluorobenzene	92.5	80-120		%REC	1	3/28/2012 1:13:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	160	7.5		mg/Kg	5	4/4/2012 1:40:33 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-032212
Project: OCD Central Landfarm Semiannual Sam
Collection Date:
Lab ID: 1203888-005
Matrix: SOIL
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/28/2012 1:42:29 AM
Toluene	ND	0.050		mg/Kg	1	3/28/2012 1:42:29 AM
Ethylbenzene	ND	0.050		mg/Kg	1	3/28/2012 1:42:29 AM
Xylenes, Total	ND	0.099		mg/Kg	1	3/28/2012 1:42:29 AM
Surr: 4-Bromofluorobenzene	91.7	80-120		%REC	1	3/28/2012 1:42:29 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	210	7.5		mg/Kg	5	4/4/2012 1:52:57 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	21		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-008 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-032212
Collection Date: 3/22/2012 11:15:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8082: PCB'S						Analyst: **SCC**
Aroclor 1016	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1221	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1232	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1242	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1248	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1254	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Aroclor 1260	ND	0.078		mg/Kg	1	4/2/2012 12:56:25 PM
Surr: Decachlorobiphenyl	85.6	20.7-114		%REC	1	4/2/2012 12:56:25 PM
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	750	100		mg/Kg	10	3/26/2012 9:28:05 AM
Motor Oil Range Organics (MRO)	1,100	510		mg/Kg	10	3/26/2012 9:28:05 AM
Surr: DNOP	0	77.4-131	S	%REC	10	3/26/2012 9:28:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	3/29/2012 3:49:42 PM
Surr: BFB	92.7	69.7-121		%REC	5	3/29/2012 3:49:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	17	1.5		mg/Kg	5	4/4/2012 2:05:21 PM
Chloride	100	7.5		mg/Kg	5	4/4/2012 2:05:21 PM
Nitrogen, Nitrate (As N)	6.7	1.5		mg/Kg	5	4/4/2012 2:05:21 PM
Sulfate	220	7.5		mg/Kg	5	4/4/2012 2:05:21 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	0.12	0.033		mg/Kg	1	3/27/2012 10:09:28 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Arsenic	ND	12		mg/Kg	5	4/3/2012 10:57:13 AM
Barium	320	1.0		mg/L	10	4/2/2012 10:32:58 AM
Cadmium	ND	0.50		mg/L	5	4/2/2012 10:29:05 AM
Chromium	17	1.5		mg/L	5	4/2/2012 10:29:05 AM
Copper	4.5	1.5		mg/L	5	4/2/2012 10:29:05 AM
Iron	17,000	500		mg/Kg	500	4/3/2012 10:59:28 AM
Lead	15	1.2		mg/L	5	4/2/2012 10:29:05 AM
Manganese	380	1.0		mg/L	10	4/2/2012 10:32:58 AM
Selenium	ND	12		mg/L	5	4/2/2012 10:29:05 AM
Silver	ND	1.2		mg/L	5	4/2/2012 10:29:05 AM
Uranium	ND	25		mg/L	5	4/2/2012 10:29:05 AM
Zinc	42	12		mg/L	5	4/2/2012 10:29:05 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Acenaphthylene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Aniline	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-008 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-032212
Collection Date: 3/22/2012 11:15:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Anthracene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Azobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Benzoic acid	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Carbazole	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	3/27/2012 11:51:23 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Chrysene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	3/27/2012 11:51:23 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Dibenzofuran	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	3/27/2012 11:51:23 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	3/27/2012 11:51:23 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	3/27/2012 11:51:23 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	3/27/2012 11:51:23 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
Fluoranthene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Fluorene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-008 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-032212
Collection Date: 3/22/2012 11:15:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Hexachloroethane	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Isophorone	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2-Methylphenol	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Naphthalene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
3-Nitroaniline	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	3/27/2012 11:51:23 AM
Nitrobenzene	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	3/27/2012 11:51:23 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	3/27/2012 11:51:23 AM
Phenanthrene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Phenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Pyrene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Pyridine	ND	1.0		mg/Kg	1	3/27/2012 11:51:23 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	3/27/2012 11:51:23 AM
Surr: 2,4,6-Tribromophenol	84.8	20.1-121		%REC	1	3/27/2012 11:51:23 AM
Surr: 2-Fluorobiphenyl	80.2	19-133		%REC	1	3/27/2012 11:51:23 AM
Surr: 2-Fluorophenol	74.8	20.2-108		%REC	1	3/27/2012 11:51:23 AM
Surr: 4-Terphenyl-d14	80.6	18.9-115		%REC	1	3/27/2012 11:51:23 AM
Surr: Nitrobenzene-d5	75.5	20.8-123		%REC	1	3/27/2012 11:51:23 AM
Surr: Phenol-d5	74.4	19.8-115		%REC	1	3/27/2012 11:51:23 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Toluene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Ethylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Naphthalene	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-008 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-032212
Collection Date: 3/22/2012 11:15:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1-Methylnaphthalene	ND	0.19		mg/Kg	1	3/28/2012 4:34:49 PM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	3/28/2012 4:34:49 PM
Acetone	ND	0.72		mg/Kg	1	3/28/2012 4:34:49 PM
Bromobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Bromodichloromethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Bromoform	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Bromomethane	ND	0.14		mg/Kg	1	3/28/2012 4:34:49 PM
2-Butanone	ND	0.48		mg/Kg	1	3/28/2012 4:34:49 PM
Carbon disulfide	ND	0.48		mg/Kg	1	3/28/2012 4:34:49 PM
Carbon tetrachloride	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Chlorobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Chloroethane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Chloroform	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Chloromethane	ND	0.14		mg/Kg	1	3/28/2012 4:34:49 PM
2-Chlorotoluene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
4-Chlorotoluene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
cis-1,2-DCE	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2-Dibromo-3-chloropropane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Dibromochloromethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Dibromomethane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,1-Dichloroethane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
1,1-Dichloroethene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2-Dichloropropane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,3-Dichloropropane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
2,2-Dichloropropane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
1,1-Dichloropropene	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Hexachlorobutadiene	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
2-Hexanone	ND	0.48		mg/Kg	1	3/28/2012 4:34:49 PM
Isopropylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
4-Isopropyltoluene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	3/28/2012 4:34:49 PM
Methylene chloride	ND	0.14		mg/Kg	1	3/28/2012 4:34:49 PM
n-Butylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
n-Propylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
sec-Butylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Styrene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
tert-Butylbenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-TZ-032212
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 3/22/2012 11:15:00 AM
Lab ID: 1203888-008 **Matrix:** SOIL
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
trans-1,2-DCE	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2,3-Trichlorobenzene	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Trichlorofluoromethane	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
1,2,3-Trichloropropane	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Vinyl chloride	ND	0.048		mg/Kg	1	3/28/2012 4:34:49 PM
Xylenes, Total	ND	0.096		mg/Kg	1	3/28/2012 4:34:49 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	3/28/2012 4:34:49 PM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	1	3/28/2012 4:34:49 PM
Surr: Dibromofluoromethane	99.3	71.7-132		%REC	1	3/28/2012 4:34:49 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	3/28/2012 4:34:49 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	270	20		mg/Kg	1	3/27/2012

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB-032212
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 3/22/2012 8:15:00 AM
Lab ID: 1203888-009
Matrix: AQUEOUS
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/30/2012 6:57:28 PM
Toluene	ND	1.0		µg/L	1	3/30/2012 6:57:28 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2012 6:57:28 PM
Xylenes, Total	ND	2.0		µg/L	1	3/30/2012 6:57:28 PM
Surr: 4-Bromofluorobenzene	92.6	55-140		%REC	1	3/30/2012 6:57:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1203888-010 **Matrix:**

Client Sample ID: FB-032212
Collection Date: 3/22/2012 8:20:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/30/2012 7:27:42 PM
Toluene	ND	1.0		µg/L	1	3/30/2012 7:27:42 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2012 7:27:42 PM
Xylenes, Total	ND	2.0		µg/L	1	3/30/2012 7:27:42 PM
Surr: 4-Bromofluorobenzene	73.3	55-140		%REC	1	3/30/2012 7:27:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: OCD Central Landfarm Semiannual Sam
Collection Date:
Lab ID: 1203888-011
Matrix: TRIP BLANK
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	3/30/2012 7:57:56 PM
Toluene	ND	1.0		µg/L	1	3/30/2012 7:57:56 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2012 7:57:56 PM
Xylenes, Total	ND	2.0		µg/L	1	3/30/2012 7:57:56 PM
Surr: 4-Bromofluorobenzene	95.6	55-140		%REC	1	3/30/2012 7:57:56 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: OCD Central Landfarm Semiannual Sam
Collection Date:
Lab ID: 1203888-012
Matrix: MEOH (SOIL)
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	3/28/2012 2:11:18 AM
Toluene	ND	0.050		mg/Kg	1	3/28/2012 2:11:18 AM
Ethylbenzene	ND	0.050		mg/Kg	1	3/28/2012 2:11:18 AM
Xylenes, Total	ND	0.10		mg/Kg	1	3/28/2012 2:11:18 AM
Surr: 4-Bromofluorobenzene	92.4	80-120		%REC	1	3/28/2012 2:11:18 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120327024
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1203888
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120327024-001	**Sampling Date**	3/22/2012	**Date/Time Received**	3/27/2012 11:10 AM
Client Sample ID	1203888-008D / CENTRALOCD-TZ-032212			**Sampling Time**	11:15 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.371	mg/Kg	0.296	4/5/2012	CRW	EPA 335.4	
%moisture	15.7	Percent				%moisture	

Authorized Signature

John Coddington, Lab Manager

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

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The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1203888
Pace Project No.: 3065975

Sample: 1203888-008E CentralOCD-TZ-032 **Lab ID: 3065975001** Collected: 03/22/12 11:15 Received: 03/27/12 09:30 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	**1.03 ± 0.241 (0.211)**	pCi/g	04/21/12 13:52	13982-63-3	
Radium-228	EPA 901.1m	**1.25 ± 0.327 (0.395)**	pCi/g	04/21/12 13:52	15262-20-1	

Date: 04/23/2012 02:27 PM

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1203888
Pace Project No.: 3065975

QC Batch: RADC/11521
QC Batch Method: EPA 901.1m
Analysis Method: EPA 901.1m
Analysis Description: 901.1 Gamma Spec
Associated Lab Samples: 3065975001

METHOD BLANK: 422580
Matrix: Solid
Associated Lab Samples: 3065975001

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	0.00800 ± 0.0150 (0.298)	pCi/g	04/21/12 18:19	
Radium-228	-0.030 ± 0.397 (0.440)	pCi/g	04/21/12 18:19	

REPORT OF LABORATORY ANALYSIS

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1353**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **1353**	RunNo: **1905**
Prep Date: **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53109** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Nitrogen, Nitrate (As N)	ND	0.30								
Sulfate	ND	1.5								

Sample ID **LCS-1353**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **1353**	RunNo: **1905**
Prep Date: **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53110** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	93.6	90	110			
Chloride	14	1.5	15.00	0	90.0	90	110			
Nitrogen, Nitrate (As N)	7.1	0.30	7.500	0	94.8	90	110			
Sulfate	28	1.5	30.00	0	94.4	90	110			

Sample ID **1203888-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **CentralOCD-01-0322**	Batch ID: **1353**	RunNo: **1905**
Prep Date: **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53116** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.8	1.5	1.500	1.975	52.5	18.1	130			
Chloride	230	7.5	15.00	213.8	117	74.6	118			
Nitrogen, Nitrate (As N)	6.6	1.5	7.500	0	87.9	71.1	114			
Sulfate	250	7.5	30.00	212.5	123	27.5	134			

Sample ID **1203888-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **CentralOCD-01-0322**	Batch ID: **1353**	RunNo: **1905**
Prep Date: **4/3/2012**	Analysis Date: **4/4/2012**	SeqNo: **53117** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.9	1.5	1.500	1.975	58.7	18.1	130	3.28	20	
Chloride	240	7.5	15.00	213.8	158	74.6	118	2.65	20	S
Nitrogen, Nitrate (As N)	6.5	1.5	7.500	0	87.3	71.1	114	0.781	20	
Sulfate	290	7.5	30.00	212.5	252	27.5	134	14.5	20	S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203888**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

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

Sample ID **MB-1236**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **1236**	RunNo: **1703**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48027** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-1236**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **1236**	RunNo: **1703**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48028** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	103	87.8	115			

Sample ID **LCSD-1236**	SampType: **LCSD**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS02**	Batch ID: **1236**	RunNo: **1703**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48030** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	99.8	87.8	115	2.94	8.04	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1227**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **1227**	RunNo: **1666**
Prep Date: **3/24/2012**	Analysis Date: **3/25/2012**	SeqNo: **47119** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.2		10.00		91.9	77.4	131			

Sample ID **LCS-1227**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **1227**	RunNo: **1666**
Prep Date: **3/24/2012**	Analysis Date: **3/25/2012**	SeqNo: **47120** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.2	62.7	139			
Surr: DNOP	4.3		5.000		85.7	77.4	131			

Sample ID **1203865-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **1227**	RunNo: **1666**
Prep Date: **3/24/2012**	Analysis Date: **3/25/2012**	SeqNo: **47122** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	83	9.9	49.26	36.48	94.5	57.2	146			
Surr: DNOP	4.9		4.926		99.6	77.4	131			

Sample ID **1203865-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **1227**	RunNo: **1666**
Prep Date: **3/24/2012**	Analysis Date: **3/25/2012**	SeqNo: **47123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	70	9.9	49.50	36.48	68.6	57.2	146	16.4	26.7	
Surr: DNOP	4.9		4.950		99.1	77.4	131	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203888**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

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

Sample ID **MB-1228**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **1228**	RunNo: **1739**
Prep Date: **3/25/2012**	Analysis Date: **3/27/2012**	SeqNo: **49002** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	950		1,000		95.3	69.7	121			

Sample ID **LCS-1228**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **1228**	RunNo: **1739**
Prep Date: **3/25/2012**	Analysis Date: **3/27/2012**	SeqNo: **49003** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1,000		1,000		100	69.7	121			

Sample ID **1203863-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **1228**	RunNo: **1739**
Prep Date: **3/25/2012**	Analysis Date: **3/27/2012**	SeqNo: **49017** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1,000		996.0		103	69.7	121			

Sample ID **1203863-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **1228**	RunNo: **1739**
Prep Date: **3/25/2012**	Analysis Date: **3/27/2012**	SeqNo: **49018** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1,000		1,000		102	69.7	121	0	0	

Sample ID **MB-1222**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **1222**	RunNo: **1770**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49724** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1,000		92.1	69.7	121			

Sample ID **LCS-1222**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **1222**	RunNo: **1770**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49725** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	98.5	133			
Surr: BFB	1,100		1,000		112	69.7	121			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1203871-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **1222**	RunNo: **1770**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49744** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	4.9	24.41	0	101	85.4	147			
Surr: BFB	940		976.6		96.1	69.7	121			

Sample ID **1203871-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **1222**	RunNo: **1770**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49745** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.72	0	101	85.4	147	3.60	19.2	
Surr: BFB	930		948.8		97.6	69.7	121	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

WO#: **1203888**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

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

Sample ID **MB-1228** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **1228** RunNo: **1740**
Prep Date: **3/25/2012** Analysis Date: **3/27/2012** SeqNo: **49023** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.95		1.000		95.5	80	120			

Sample ID **LCS-1228** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **1228** RunNo: **1740**
Prep Date: **3/25/2012** Analysis Date: **3/27/2012** SeqNo: **49024** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	90.9	83.3	107			
Toluene	0.92	0.050	1.000	0	92.1	74.3	115			
Ethylbenzene	0.94	0.050	1.000	0	94.0	80.9	122			
Xylenes, Total	2.8	0.10	3.000	0	94.3	85.2	123			
Surr: 4-Bromofluorobenzene	0.98		1.000		97.7	80	120			

Sample ID **1203888-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CentralOCD-01-0322** Batch ID: **1228** RunNo: **1740**
Prep Date: **3/25/2012** Analysis Date: **3/27/2012** SeqNo: **49045** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.048	0.9615	0	90.3	67.2	113			
Toluene	0.89	0.048	0.9615	0	92.7	62.1	116			
Ethylbenzene	0.89	0.048	0.9615	0	93.0	67.9	127			
Xylenes, Total	2.7	0.096	2.885	0	93.6	60.6	134			
Surr: 4-Bromofluorobenzene	0.93		0.9615		96.7	80	120			

Sample ID **1203888-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CentralOCD-01-0322** Batch ID: **1228** RunNo: **1740**
Prep Date: **3/25/2012** Analysis Date: **3/27/2012** SeqNo: **49046** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.048	0.9690	0	91.3	67.2	113	1.82	14.3	
Toluene	0.91	0.048	0.9690	0	94.1	62.1	116	2.24	15.9	
Ethylbenzene	0.93	0.048	0.9690	0	96.3	67.9	127	4.32	14.4	
Xylenes, Total	2.8	0.097	2.907	0	96.5	60.6	134	3.78	12.6	
Surr: 4-Bromofluorobenzene	0.93		0.9690		95.5	80	120	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1222**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **1222**	RunNo: **1771**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49749** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.91		1.000		91.4	80	120			

Sample ID **LCS-1222**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **1222**	RunNo: **1771**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49750** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.94		1.000		94.0	80	120			

Sample ID **1203865-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **1222**	RunNo: **1771**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49763** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2.0		1.848		109	80	120			

Sample ID **1203865-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **1222**	RunNo: **1771**
Prep Date: **3/23/2012**	Analysis Date: **3/28/2012**	SeqNo: **49764** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2.2		1.842		117	80	120	0	0	

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1854**	RunNo: **1854**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51880** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	18		20.00		92.2	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1854**	RunNo: **1854**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	22	1.0	20.00	0	111	80	120			
Xylenes, Total	67	2.0	60.00	0	111	80	120			
Surr: 4-Bromofluorobenzene	18		20.00		92.0	55	140			

Sample ID **1203873-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1854**	RunNo: **1854**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51888** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70.1	118			
Toluene	21	1.0	20.00	0	103	72.3	117			
Ethylbenzene	21	1.0	20.00	0	104	73.5	117			
Xylenes, Total	63	2.0	60.00	0	104	73.1	119			
Surr: 4-Bromofluorobenzene	20		20.00		102	55	140			

Sample ID **1203873-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1854**	RunNo: **1854**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51889** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.4	70.1	118	2.11	16.4	
Toluene	20	1.0	20.00	0	101	72.3	117	1.41	13.9	
Ethylbenzene	20	1.0	20.00	0	100	73.5	117	3.48	13.5	
Xylenes, Total	60	2.0	60.00	0	100	73.1	119	3.70	12.9	
Surr: 4-Bromofluorobenzene	20		20.00		98.9	55	140	0	0	

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1300**	SampType: **MBLK**	TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS**	Batch ID: **1300**	RunNo: **1836**
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **51274** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.046		0.06250		74.4	20.7	114			

Sample ID **LCS-1300**	SampType: **LCS**	TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS**	Batch ID: **1300**	RunNo: **1836**
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **51486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1260	0.098	0.020	0.1250	0	78.2	21.4	118			
Surr: Decachlorobiphenyl	0.042		0.06250		66.4	20.7	114			

Sample ID **LCSD-1300**	SampType: **LCSD**	TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS02**	Batch ID: **1300**	RunNo: **1836**
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **51492** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1260	0.087	0.020	0.1250	0	69.8	21.4	118	11.3	20	
Surr: Decachlorobiphenyl	0.037		0.06250		59.2	20.7	114	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

WO#: **1203888**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

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

Sample ID **mb-1222**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **1222**	RunNo: **1706**	
Prep Date: **3/23/2012**	Analysis Date: **3/26/2012**	SeqNo: **48074**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-1222**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **1222**	RunNo: **1706**
Prep Date: **3/23/2012**	Analysis Date: **3/26/2012**	SeqNo: **48074** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.6	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	71.7	132			
Surr: Toluene-d8	0.47		0.5000		93.0	70	130			

Sample ID **lcs-1222**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **1222**	RunNo: **1706**
Prep Date: **3/23/2012**	Analysis Date: **3/26/2012**	SeqNo: **48076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	0.93	0.050	1.000	0	93.4	80	120			
Chlorobenzene	0.95	0.050	1.000	0	95.5	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	113	63.1	148			
Trichloroethene (TCE)	0.98	0.050	1.000	0	97.6	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		85.5	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **lcs-1222** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSS** Batch ID: **1222** RunNo: **1706**

Prep Date: **3/23/2012** Analysis Date: **3/26/2012** SeqNo: **48076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.49		0.5000		98.7	71.7	132			
Surr: Toluene-d8	0.45		0.5000		90.9	70	130			

Sample ID **1203813-001ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **1222** RunNo: **1706**

Prep Date: **3/23/2012** Analysis Date: **3/26/2012** SeqNo: **48078** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.049	0.9709	0	101	81.3	119			
Toluene	0.85	0.049	0.9709	0	88.0	75	121			
Chlorobenzene	0.89	0.049	0.9709	0	91.2	78.5	120			
1,1-Dichloroethene	1.0	0.049	0.9709	0	103	75.3	115			
Trichloroethene (TCE)	0.94	0.049	0.9709	0.05739	91.2	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.47		0.4854		97.1	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.4854		89.2	70	130			
Surr: Dibromofluoromethane	0.47		0.4854		96.0	71.7	132			
Surr: Toluene-d8	0.43		0.4854		89.3	70	130			

Sample ID **1203813-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **1222** RunNo: **1706**

Prep Date: **3/23/2012** Analysis Date: **3/26/2012** SeqNo: **48080** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.048	0.9588	0	93.3	81.3	119	9.53	15.7	
Toluene	0.85	0.048	0.9588	0	88.9	75	121	0.320	16.2	
Chlorobenzene	0.87	0.048	0.9588	0	90.3	78.5	120	2.21	14.9	
1,1-Dichloroethene	0.92	0.048	0.9588	0	95.5	75.3	115	8.56	31.8	
Trichloroethene (TCE)	0.97	0.048	0.9588	0.05739	95.5	67.8	119	3.12	16.5	
Surr: 1,2-Dichloroethane-d4	0.43		0.4794		90.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.44		0.4794		92.7	70	130	0	0	
Surr: Dibromofluoromethane	0.45		0.4794		93.1	71.7	132	0	0	
Surr: Toluene-d8	0.42		0.4794		88.4	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-1234**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **1234**	RunNo: **1719**	
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48451**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-1234**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **1234**	RunNo: **1719**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48451** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.9		3.330		86.6	20.1	121			
Surr: 2-Fluorobiphenyl	1.4		1.670		83.2	19	133			
Surr: 2-Fluorophenol	2.6		3.330		79.2	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		79.3	18.9	115			
Surr: Nitrobenzene-d5	1.5		1.670		86.9	20.8	123			
Surr: Phenol-d5	2.8		3.330		85.3	19.8	115			

Sample ID **lcs-1234**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **1234**	RunNo: **1719**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48452** Units: **mg/Kg**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **lcs-1234**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **1234**	RunNo: **1719**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48452** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.0	0.20	1.670	0	61.1	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	68.8	43.8	89.1			
2-Chlorophenol	2.4	0.20	3.330	0	72.0	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	61.4	41	97.4			
2,4-Dinitrotoluene	1.1	0.50	1.670	0	68.7	44.4	104			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	64.2	39.1	86.9			
4-Nitrophenol	2.3	0.25	3.330	0	70.0	44.2	107			
Pentachlorophenol	1.9	0.40	3.330	0	56.9	36.2	80			
Phenol	2.3	0.20	3.330	0	70.5	42.7	92.7			
Pyrene	1.0	0.20	1.670	0	62.4	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	76.1	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.9		3.330		86.9	20.1	121			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.9	19	133			
Surr: 2-Fluorophenol	2.3		3.330		69.0	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		79.4	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		70.8	20.8	123			
Surr: Phenol-d5	2.7		3.330		79.7	19.8	115			

Sample ID **1203888-008Bms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **CentralOCD-TZ-032**	Batch ID: **1234**	RunNo: **1719**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48466** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.40	1.678	0	69.5	34.9	118			
4-Chloro-3-methylphenol	2.5	1.0	3.347	0	75.9	28.8	126			
2-Chlorophenol	2.7	0.40	3.347	0	80.2	26.7	115			
1,4-Dichlorobenzene	1.2	0.40	1.678	0	72.0	23.1	109			
2,4-Dinitrotoluene	1.3	1.0	1.678	0	78.1	14.6	109			
N-Nitrosodi-n-propylamine	1.5	0.40	1.678	0	87.2	20.9	120			
4-Nitrophenol	2.5	0.50	3.347	0	75.6	16	171			
Pentachlorophenol	2.2	0.80	3.347	0	65.0	26.8	134			
Phenol	2.6	0.40	3.347	0	79.1	29.6	115			
Pyrene	1.4	0.40	1.678	0	81.0	12.6	134			
1,2,4-Trichlorobenzene	1.4	0.40	1.678	0	85.0	24.6	124			
Surr: 2,4,6-Tribromophenol	3.4		3.347		101	20.1	121			
Surr: 2-Fluorobiphenyl	1.4		1.678		86.2	19	133			
Surr: 2-Fluorophenol	3.0		3.347		90.6	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.678		88.5	18.9	115			
Surr: Nitrobenzene-d5	1.6		1.678		94.0	20.8	123			
Surr: Phenol-d5	3.2		3.347		94.9	19.8	115			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1203888-008Bmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **CentralOCD-TZ-032** Batch ID: **1234** RunNo: **1719**

Prep Date: **3/26/2012** Analysis Date: **3/27/2012** SeqNo: **48517** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.39	1.615	0	71.8	34.9	118	0.655	20	
4-Chloro-3-methylphenol	2.4	0.97	3.219	0	73.3	28.8	126	7.34	20	
2-Chlorophenol	2.5	0.39	3.219	0	77.3	26.7	115	7.59	20	
1,4-Dichlorobenzene	1.1	0.39	1.615	0	70.5	23.1	109	6.00	20	
2,4-Dinitrotoluene	1.2	0.97	1.615	0	72.3	14.6	109	11.6	20	
N-Nitrosodi-n-propylamine	1.3	0.39	1.615	0	83.0	20.9	120	8.85	20	
4-Nitrophenol	2.5	0.48	3.219	0	76.9	16	171	2.12	20	
Pentachlorophenol	1.9	0.77	3.219	0	58.9	26.8	134	13.8	20	
Phenol	2.4	0.39	3.219	0	73.3	29.6	115	11.5	20	
Pyrene	1.3	0.39	1.615	0	80.6	12.6	134	4.37	20	
1,2,4-Trichlorobenzene	1.3	0.39	1.615	0	81.9	24.6	124	7.56	20	
Surr: 2,4,6-Tribromophenol	2.8		3.219		87.9	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.615		82.3	19	133	0	0	
Surr: 2-Fluorophenol	2.7		3.219		83.5	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.3		1.615		79.9	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.4		1.615		85.7	20.8	123	0	0	
Surr: Phenol-d5	2.7		3.219		83.2	19.8	115	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1243**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **1243**	RunNo: **1713**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48272** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-1243**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **1243**	RunNo: **1713**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48273** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	105	80	120			

Sample ID **1203871-001BMS**	SampType: **MS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **1243**	RunNo: **1713**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48275** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1640	0	109	75	125			

Sample ID **1203871-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **1243**	RunNo: **1713**
Prep Date: **3/26/2012**	Analysis Date: **3/27/2012**	SeqNo: **48276** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1647	0	111	75	125	2.02	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-1252** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **1252** RunNo: **1822**

Prep Date: **3/27/2012** Analysis Date: **3/30/2012** SeqNo: **50899** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-1252** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **1252** RunNo: **1822**

Prep Date: **3/27/2012** Analysis Date: **3/30/2012** SeqNo: **50900** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	26	0.10	25.00	0.02800	104	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	26	0.30	25.00	0.1255	104	80	120			
Copper	27	0.30	25.00	0.1520	109	80	120			
Lead	25	0.25	25.00	0	102	80	120			
Manganese	26	0.10	25.00	0	103	80	120			
Selenium	24	2.5	25.00	0	94.1	80	120			
Silver	5.3	0.25	5.000	0	106	80	120			
Uranium	26	5.0	25.00	0.5175	103	80	120			
Zinc	25	2.5	25.00	0.4405	100	80	120			

Sample ID **1203871-001BMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **1252** RunNo: **1822**

Prep Date: **3/27/2012** Analysis Date: **3/30/2012** SeqNo: **50905** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	92	0.50	24.96	70.23	87.4	75	125			
Cadmium	28	0.50	24.96	0	111	75	125			
Chromium	31	1.5	24.96	4.565	107	75	125			
Lead	31	1.3	24.96	3.782	108	75	125			
Selenium	19	13	24.96	0	74.5	75	125			S
Silver	5.5	1.3	4.991	0	110	75	125			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203888**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID	**1203871-001BMSD**	SampType: **MSD**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**BatchQC**	Batch ID: **1252**		RunNo: **1822**						
Prep Date:	**3/27/2012**	Analysis Date: **3/30/2012**		SeqNo: **50908**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	87	0.50	24.94	70.23	66.4	75	125	5.87	20	S
Cadmium	27	0.50	24.94	0	109	75	125	1.90	20	
Chromium	30	1.5	24.94	4.565	102	75	125	4.06	20	
Lead	29	1.2	24.94	3.782	100	75	125	6.14	20	
Selenium	21	12	24.94	0	82.7	75	125	10.3	20	
Silver	5.4	1.2	4.989	0	108	75	125	2.12	20	

Sample ID	**MB-1252**	SampType: **MBLK**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**PBS**	Batch ID: **1252**		RunNo: **1828**						
Prep Date:	**3/27/2012**	Analysis Date: **3/31/2012**		SeqNo: **51088**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	**LCS-1252**	SampType: **LCS**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**LCSS**	Batch ID: **1252**		RunNo: **1828**						
Prep Date:	**3/27/2012**	Analysis Date: **3/31/2012**		SeqNo: **51089**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	22	1.0	25.00	0	87.5	80	120			

Sample ID	**LCS-1252**	SampType: **LCS**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**LCSS**	Batch ID: **1252**		RunNo: **1848**						
Prep Date:	**3/27/2012**	Analysis Date: **4/2/2012**		SeqNo: **51706**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	100	80	120			

Sample ID	**1203871-001BMS**	SampType: **MS**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**BatchQC**	Batch ID: **1252**		RunNo: **1848**						
Prep Date:	**3/27/2012**	Analysis Date: **4/2/2012**		SeqNo: **51721**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	13	24.96	1.130	93.2	75	125			

Sample ID	**1203871-001BMSD**	SampType: **MSD**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**BatchQC**	Batch ID: **1252**		RunNo: **1848**						
Prep Date:	**3/27/2012**	Analysis Date: **4/2/2012**		SeqNo: **51725**		Units: **mg/Kg**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.94	1.130	91.7	75	125	1.59	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203888

Received by/date: MG 03/23/12

Logged By: **Michelle Garcia** 3/23/2012 11:07:00 AM — Michelle Garcia

Completed By: **Michelle Garcia** 3/23/2012 12:11:51 PM — Michelle Garcia

Reviewed By: 03/23/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833
email or Fax#: 505-722-0210

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type) _Please provide EDD

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
OCD Central Landfarm Semiannual Sampling

Project #:
697-039-002

Project Manager:
Ed Riege

Sampler: S. Ukele / T. Fleener
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1203888	TPH (418.1)	BTEX (8021)	Chlorides (300.1)	DRO and GRO (8015M)	A and B of NMAC 3103 (see attached)	Air Bubbles (Y or N)
3-22-12	1145	soil	CentralOCD-01-032212	4oz - #2	none	-001	X	X	X			
	1100	soil	CentralOCD-02-032212	4oz - #2	none	-002	X	X	X			
	1005	soil	CentralOCD-03-032212	4oz - #2	none	-003	X	X	X			
	0950	soil	CentralOCD-04-032212	4oz - #2	none	-004	X	X	X			
	-	soil	BD-032212	4oz - #2	none	-005	X	X	X			
	1145	soil	CentralOCD-01-032212-MS	4oz - #2	none	-006	X	X	X			
	1145	soil	CentralOCD-01-032212-MSD	4oz - #2	none	-007	X	X	X			
	1115	soil	CentralOCD-TZ-032212	4oz - #2 / Bore 5	none	-008	X	X	X	X	X	
	0915	water	EB-032212	VOA - 3	HCL	-009		X				
	0920	water	FB-032212	VOA - 3	HCL	-010		X				
-	-	water	Trip Blank	VOA - 3	HCL	-011		X				
-	-	MeOH	Trip Blank	VOA-2	?	-012		X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-23-12	1107				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				03/23/12	1107

Remarks: Please cc Grant Price (gprice@trihydro.com) with results. Call Grant @ 307-745-7474 w/ questions.

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 24, 2012

Ed Riege
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: OCD Central Landfarm Semiannual Sampling OrderNo.: 1208B46

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 9 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B46**
Date Reported: **9/24/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-237-8-24-12
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 9:25:00 AM
Lab ID: 1208B46-001 **Matrix:** SOIL
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	8/29/2012 2:31:41 PM
Toluene	ND	0.049		mg/Kg	1	8/29/2012 2:31:41 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/29/2012 2:31:41 PM
Xylenes, Total	ND	0.097		mg/Kg	1	8/29/2012 2:31:41 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	8/29/2012 2:31:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	350	30		mg/Kg	20	8/29/2012 2:01:07 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	160	20		mg/Kg	1	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-794-8-24-12
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 9:42:00 AM
Lab ID: 1208B46-002 **Matrix:** SOIL
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.047		mg/Kg	1	8/29/2012 3:00:31 PM
Toluene	ND	0.047		mg/Kg	1	8/29/2012 3:00:31 PM
Ethylbenzene	ND	0.047		mg/Kg	1	8/29/2012 3:00:31 PM
Xylenes, Total	ND	0.094		mg/Kg	1	8/29/2012 3:00:31 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	8/29/2012 3:00:31 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	170	30		mg/Kg	20	8/29/2012 4:30:06 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	ND	19		mg/Kg	1	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: CentralOCD-1748-8-24-12
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 10:05:00 AM
Lab ID: 1208B46-003 **Matrix:** SOIL
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	8/29/2012 3:29:18 PM
Toluene	ND	0.048		mg/Kg	1	8/29/2012 3:29:18 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/29/2012 3:29:18 PM
Xylenes, Total	ND	0.097		mg/Kg	1	8/29/2012 3:29:18 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	8/29/2012 3:29:18 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	200	30		mg/Kg	20	8/29/2012 4:54:56 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	270	20		mg/Kg	1	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-004 **Matrix:** SOIL

Client Sample ID: CentralOCD-2341-8-24-12
Collection Date: 8/24/2012 10:25:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.049		mg/Kg	1	8/29/2012 3:58:03 PM
Toluene	ND	0.049		mg/Kg	1	8/29/2012 3:58:03 PM
Ethylbenzene	ND	0.049		mg/Kg	1	8/29/2012 3:58:03 PM
Xylenes, Total	ND	0.097		mg/Kg	1	8/29/2012 3:58:03 PM
Surr: 4-Bromofluorobenzene	102	80-120		%REC	1	8/29/2012 3:58:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	250	30		mg/Kg	20	8/29/2012 6:09:24 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	280	19		mg/Kg	1	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BD-8-24-12
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 9:52:00 AM
Lab ID: 1208B46-005 **Matrix:** SOIL
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	8/29/2012 5:24:15 PM
Toluene	ND	0.048		mg/Kg	1	8/29/2012 5:24:15 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/29/2012 5:24:15 PM
Xylenes, Total	ND	0.095		mg/Kg	1	8/29/2012 5:24:15 PM
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	8/29/2012 5:24:15 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	200	7.5		mg/Kg	5	8/29/2012 6:21:49 PM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	56	19		mg/Kg	1	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-006 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-8-24-12
Collection Date: 8/24/2012 8:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 504.1 MODIFIED: EDB						Analyst: **LRW**
1,2-Dibromoethane	ND	0.10		µg/Kg	1	9/5/2012 2:52:10 PM
EPA METHOD 8082: PCB'S						Analyst: **SCC**
Aroclor 1016	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1221	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1232	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1242	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1248	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1254	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Aroclor 1260	ND	0.10		mg/Kg	1	9/4/2012 3:43:40 PM
Surr: Decachlorobiphenyl	66.0	17.3-122		%REC	1	9/4/2012 3:43:40 PM
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	3000	99		mg/Kg	10	8/29/2012 1:06:02 PM
Motor Oil Range Organics (MRO)	1300	500		mg/Kg	10	8/29/2012 1:06:02 PM
Surr: DNOP	0	77.6-140	S	%REC	10	8/29/2012 1:06:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/29/2012 5:53:06 PM
Surr: BFB	98.4	84-116		%REC	1	8/29/2012 5:53:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	8/29/2012 5:53:06 PM
Toluene	ND	0.048		mg/Kg	1	8/29/2012 5:53:06 PM
Ethylbenzene	ND	0.048		mg/Kg	1	8/29/2012 5:53:06 PM
Xylenes, Total	ND	0.096		mg/Kg	1	8/29/2012 5:53:06 PM
Surr: 4-Bromofluorobenzene	99.0	80-120		%REC	1	8/29/2012 5:53:06 PM
EPA METHOD 8310: PAHS						Analyst: **SCC**
Naphthalene	ND	25		mg/Kg	10	9/12/2012 3:39:33 PM
1-Methylnaphthalene	ND	25		mg/Kg	10	9/12/2012 3:39:33 PM
2-Methylnaphthalene	ND	25		mg/Kg	10	9/12/2012 3:39:33 PM
Acenaphthylene	ND	25		mg/Kg	10	9/12/2012 3:39:33 PM
Acenaphthene	ND	25		mg/Kg	10	9/12/2012 3:39:33 PM
Fluorene	ND	3.0		mg/Kg	10	9/12/2012 3:39:33 PM
Phenanthrene	ND	1.5		mg/Kg	10	9/12/2012 3:39:33 PM
Anthracene	ND	1.5		mg/Kg	10	9/12/2012 3:39:33 PM
Fluoranthene	ND	2.0		mg/Kg	10	9/12/2012 3:39:33 PM
Pyrene	ND	2.5		mg/Kg	10	9/12/2012 3:39:33 PM
Benz(a)anthracene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Chrysene	2.1	1.1		mg/Kg	10	9/12/2012 3:39:33 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-006 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-8-24-12
Collection Date: 8/24/2012 8:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8310: PAHS						Analyst: **SCC**
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	10	9/12/2012 3:39:33 PM
Surr: Benzo(e)pyrene	0	35.9-103	S	%REC	10	9/12/2012 3:39:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	13	1.5		mg/Kg	5	8/31/2012 10:50:00 AM
Chloride	240	7.5		mg/Kg	5	8/31/2012 10:50:00 AM
Nitrogen, Nitrate (As N)	9.8	1.5		mg/Kg	5	8/31/2012 10:50:00 AM
Sulfate	2700	30		mg/Kg	20	8/31/2012 11:02:25 AM
EPA METHOD 7471: MERCURY						Analyst: **TES**
Mercury	0.41	0.17		mg/kg	5	9/6/2012 9:37:59 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Arsenic	ND	12		mg/Kg	5	8/30/2012 2:11:31 PM
Barium	420	1.0		mg/Kg	10	8/30/2012 2:28:26 PM
Cadmium	ND	0.50		mg/Kg	5	8/30/2012 2:11:31 PM
Chromium	24	1.5		mg/Kg	5	8/30/2012 2:11:31 PM
Copper	17	1.5		mg/Kg	5	8/30/2012 2:11:31 PM
Iron	20000	500		mg/Kg	500	8/30/2012 2:30:55 PM
Lead	120	1.2		mg/Kg	5	8/30/2012 2:11:31 PM
Manganese	370	1.0		mg/Kg	10	8/30/2012 2:28:26 PM
Selenium	ND	12		mg/Kg	5	8/30/2012 2:11:31 PM
Silver	ND	1.2		mg/Kg	5	8/30/2012 2:11:31 PM
Uranium	ND	25		mg/Kg	5	8/30/2012 2:11:31 PM
Zinc	140	12		mg/Kg	5	8/30/2012 2:11:31 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	9/6/2012 2:49:03 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	9/6/2012 2:49:03 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	9/6/2012 2:49:03 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	9/6/2012 2:49:03 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	9/6/2012 2:49:03 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	9/6/2012 2:49:03 PM
2-Methylphenol	ND	2.5		mg/Kg	1	9/6/2012 2:49:03 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	9/6/2012 2:49:03 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	9/6/2012 2:49:03 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	9/6/2012 2:49:03 PM
Phenol	ND	1.0		mg/Kg	1	9/6/2012 2:49:03 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	9/6/2012 2:49:03 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	9/6/2012 2:49:03 PM
Surr: 2,4,6-Tribromophenol	96.9	21.3-145		%REC	1	9/6/2012 2:49:03 PM
Surr: 2-Fluorobiphenyl	104	20-131		%REC	1	9/6/2012 2:49:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-006 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-8-24-12
Collection Date: 8/24/2012 8:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	109	11.9-130		%REC	1	9/6/2012 2:49:03 PM
Surr: 4-Terphenyl-d14	97.5	25.1-149		%REC	1	9/6/2012 2:49:03 PM
Surr: Nitrobenzene-d5	108	25.6-137		%REC	1	9/6/2012 2:49:03 PM
Surr: Phenol-d5	109	20.3-132		%REC	1	9/6/2012 2:49:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Toluene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Ethylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Naphthalene	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
1-Methylnaphthalene	ND	0.19		mg/Kg	1	8/31/2012 12:33:43 AM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	8/31/2012 12:33:43 AM
Acetone	ND	0.72		mg/Kg	1	8/31/2012 12:33:43 AM
Bromobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Bromodichloromethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Bromoform	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Bromomethane	ND	0.14		mg/Kg	1	8/31/2012 12:33:43 AM
2-Butanone	ND	0.48		mg/Kg	1	8/31/2012 12:33:43 AM
Carbon disulfide	ND	0.48		mg/Kg	1	8/31/2012 12:33:43 AM
Carbon tetrachloride	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Chlorobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Chloroethane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Chloroform	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Chloromethane	ND	0.14		mg/Kg	1	8/31/2012 12:33:43 AM
2-Chlorotoluene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
4-Chlorotoluene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
cis-1,2-DCE	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2-Dibromo-3-chloropropane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Dibromochloromethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Dibromomethane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,1-Dichloroethane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
1,1-Dichloroethene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-006 **Matrix:** SOIL

Client Sample ID: CentralOCD-TZ-8-24-12
Collection Date: 8/24/2012 8:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,3-Dichloropropane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
2,2-Dichloropropane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
1,1-Dichloropropene	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Hexachlorobutadiene	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
2-Hexanone	ND	0.48		mg/Kg	1	8/31/2012 12:33:43 AM
Isopropylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
4-Isopropyltoluene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	8/31/2012 12:33:43 AM
Methylene chloride	ND	0.14		mg/Kg	1	8/31/2012 12:33:43 AM
n-Butylbenzene	ND	0.14		mg/Kg	1	8/31/2012 12:33:43 AM
n-Propylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
sec-Butylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Styrene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
tert-Butylbenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
trans-1,2-DCE	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2,3-Trichlorobenzene	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Trichlorofluoromethane	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
1,2,3-Trichloropropane	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Vinyl chloride	ND	0.048		mg/Kg	1	8/31/2012 12:33:43 AM
Xylenes, Total	ND	0.096		mg/Kg	1	8/31/2012 12:33:43 AM
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	1	8/31/2012 12:33:43 AM
Surr: 4-Bromofluorobenzene	82.0	70-130		%REC	1	8/31/2012 12:33:43 AM
Surr: Dibromofluoromethane	98.7	70-130		%REC	1	8/31/2012 12:33:43 AM
Surr: Toluene-d8	74.4	70-130		%REC	1	8/31/2012 12:33:43 AM
EPA METHOD 418.1: TPH						Analyst: **JMP**
Petroleum Hydrocarbons, TR	3900	400		mg/Kg	20	8/28/2012

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB-20120824
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 11:00:00 AM
Lab ID: 1208B46-007 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	8/29/2012 7:00:23 PM
Toluene	ND	1.0		µg/L	1	8/29/2012 7:00:23 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 7:00:23 PM
Xylenes, Total	ND	2.0		µg/L	1	8/29/2012 7:00:23 PM
Surr: 4-Bromofluorobenzene	98.5	55-140		%REC	1	8/29/2012 7:00:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB-20120824
Project: OCD Central Landfarm Semiannual Sam
Collection Date: 8/24/2012 10:55:00 AM
Lab ID: 1208B46-008
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	8/29/2012 7:30:36 PM
Toluene	ND	1.0		µg/L	1	8/29/2012 7:30:36 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 7:30:36 PM
Xylenes, Total	ND	2.0		µg/L	1	8/29/2012 7:30:36 PM
Surr: 4-Bromofluorobenzene	99.6	55-140		%REC	1	8/29/2012 7:30:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: OCD Central Landfarm Semiannual Sam
Lab ID: 1208B46-009 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	1.0		µg/L	1	8/29/2012 8:00:44 PM
Toluene	ND	1.0		µg/L	1	8/29/2012 8:00:44 PM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 8:00:44 PM
Xylenes, Total	ND	2.0		µg/L	1	8/29/2012 8:00:44 PM
Surr: 4-Bromofluorobenzene	116	55-140		%REC	1	8/29/2012 8:00:44 PM

Qualifiers:

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

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REPORT OF ANALYSIS

August 31, 2012

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

ESC Sample # : L592138-01

Date Received : August 28, 2012
Description :

Site ID :

Sample ID : 1208B46-006B CENTRALOCD-TZ-8-24-12

Project # :

Collected By :
Collection Date : 08/24/12 08:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Cyanide	0.56	0.25	mg/kg	9012B	08/31/12	1

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

Reported: 08/31/12 15:42 Printed: 08/31/12 15:42

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Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L592138

August 31, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Cyanide	< .25	mg/kg			WG610363	08/31/12 12:14

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Cyanide	mg/kg	0	0	0	20	L592564-02	WG610363

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Cyanide	mg/kg	10	10.6	106.	50-150	WG610363

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Cyanide	mg/kg	10.0	10.6	100.	50-150	5.83	20	WG610363

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Cyanide	mg/kg	3.42	0	3.33	103.	80-120	L592564-01	WG610363

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Cyanide	mg/kg	3.37	3.42	101.	80-120	1.47	20	L592564-01	WG610363

Batch number /Run number / Sample number cross reference

WG610363: R2326193: L592138-01

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

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: 1208B46
Pace Project No.: 3076229

Sample: 1208B46-006 CentralOCD-TZ-8-24 **Lab ID: 3076229001** Collected: 08/24/12 08:50 Received: 08/28/12 10:00 Matrix: Solid
PWS: Site ID: Sample Type:

Results reported on a "dry-weight" basis

Parameters	Method	Act ± Unc (MDC)	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 901.1m	**0.930 ± 0.175 (0.174)**	pCi/g	09/21/12 08:36	13982-63-3	
Radium-228	EPA 901.1m	**1.391 ± 0.318 (0.200)**	pCi/g	09/21/12 08:36	15262-20-1	

Date: 09/24/2012 02:20 PM

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 1208B46
Pace Project No.: 3076229

QC Batch: RADC/13044
QC Batch Method: EPA 901.1m
Associated Lab Samples: 3076229001

Analysis Method: EPA 901.1m
Analysis Description: 901.1 Gamma Spec

METHOD BLANK: 481261
Associated Lab Samples: 3076229001

Matrix: Solid

Parameter	Act ± Unc (MDC)	Units	Analyzed	Qualifiers
Radium-226	-0.044 ± 0.709 (0.353)	pCi/g	09/21/12 10:44	
Radium-228	-0.076 ± 1.032 (0.479)	pCi/g	09/21/12 10:44	

Date: 09/24/2012 02:20 PM

REPORT OF LABORATORY ANALYSIS

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QC SUMMARY REPORT

WO#: **1208B46**

Hall Environmental Analysis Laboratory, Inc.

24-Sep-12

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

Sample ID **MB-3530**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **3530**	RunNo: **5190**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147605** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								
Chloride	ND	1.5								
Sulfate	ND	1.5								

Sample ID **LCS-3530**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **3530**	RunNo: **5190**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147606** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.30	1.500	0	99.1	90	110			
Chloride	14	1.5	15.00	0	95.9	90	110			
Sulfate	29	1.5	30.00	0	97.0	90	110			

Sample ID **1208B46-004BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **CentralOCD-2341-8-**	Batch ID: **3530**	RunNo: **5190**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147625** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	7.8	0.30	1.500	8.716	-61.0	18.1	130			S

Sample ID **1208B46-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **CentralOCD-2341-8-**	Batch ID: **3530**	RunNo: **5190**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	8.0	0.30	1.500	8.716	-50.1	18.1	130	2.06	20	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3498**	SampType: **MBLK**	TestCode: **EPA Method 418.1: TPH**
Client ID: **PBS**	Batch ID: **3498**	RunNo: **5136**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146008** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	ND	20								

Sample ID **LCS-3498**	SampType: **LCS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **LCSS**	Batch ID: **3498**	RunNo: **5136**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146009** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	100	20	100.0	0	102	80	120			

Sample ID **1208B46-004AMS**	SampType: **MS**	TestCode: **EPA Method 418.1: TPH**
Client ID: **CentralOCD-2341-8-**	Batch ID: **3498**	RunNo: **5136**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	300	19	96.06	277.1	18.8	80	120			S

Sample ID **1208B46-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 418.1: TPH**
nt ID: **CentralOCD-2341-8-**	Batch ID: **3498**	RunNo: **5136**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hydrocarbons, TR	210	21	103.1	277.1	-62.1	80	120	32.3	20	SR

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3622**	SampType: **MBLK**	TestCode: **EPA Method 504.1 Modified: EDB**
Client ID: **PBS**	Batch ID: **3622**	RunNo: **5315**
Prep Date: **9/5/2012**	Analysis Date: **9/5/2012**	SeqNo: **151310** Units: **µg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.10								

Sample ID **LCS-3622**	SampType: **LCS**	TestCode: **EPA Method 504.1 Modified: EDB**
Client ID: **LCSS**	Batch ID: **3622**	RunNo: **5315**
Prep Date: **9/5/2012**	Analysis Date: **9/5/2012**	SeqNo: **151311** Units: **µg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.0	0.10	1.000	0	104	70	130			

Sample ID **1208B46-006AMS**	SampType: **MS**	TestCode: **EPA Method 504.1 Modified: EDB**
Client ID: **CentralOCD-TZ-8-24**	Batch ID: **3622**	RunNo: **5315**
Prep Date: **9/5/2012**	Analysis Date: **9/5/2012**	SeqNo: **151314** Units: **µg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.1	0.10	1.006	0	111	70	130			

Sample ID **1208B46-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 504.1 Modified: EDB**
Client ID: **CentralOCD-TZ-8-24**	Batch ID: **3622**	RunNo: **5315**
Prep Date: **9/5/2012**	Analysis Date: **9/5/2012**	SeqNo: **151315** Units: **µg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.96	0.099	0.9943	0	96.2	70	130	15.4	20	

Qualifiers:

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- E Value above quantitation range
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- P Sample pH greater than 2
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3497**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **3497**	RunNo: **5130**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **145851** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	77.6	140			

Sample ID **LCS-3497**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **3497**	RunNo: **5130**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146003** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	88.4	52.6	130			
Surr: DNOP	4.3		5.000		86.4	77.6	140			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
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QC SUMMARY REPORT

WO#: **1208B46**

Hall Environmental Analysis Laboratory, Inc.

24-Sep-12

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

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146743** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		96.6	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146744** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	84	116			

Sample ID **MB-3494**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146758** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		96.4	84	116			

Sample ID **LCS-3494**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146759** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.8	74	117			
Surr: BFB	1000		1000		102	84	116			

Qualifiers:

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- P Sample pH greater than 2
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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5200**	RunNo: **5200**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147935** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		102	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5200**	RunNo: **5200**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147937** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	18		20.00		92.2	69.8	119			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146803** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		98.2	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R5146**	RunNo: **5146**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146804** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **MB-3494**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146847** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120			

Sample ID **LCS-3494**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5146**
Prep Date: **8/27/2012**	Analysis Date: **8/28/2012**	SeqNo: **146848** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.050	1.000	0	93.9	76.3	117			
Toluene	0.97	0.050	1.000	0	97.3	80	120			
Ethylbenzene	0.98	0.050	1.000	0	98.4	77	116			
Xylenes, Total	3.0	0.10	3.000	0	99.3	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID **1208B46-004AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **CentralOCD-2341-8-**	Batch ID: **3494**	RunNo: **5174**
Prep Date: **8/27/2012**	Analysis Date: **8/29/2012**	SeqNo: **147924** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.048	0.9634	0	94.4	67.2	113			
Toluene	0.91	0.048	0.9634	0	94.7	62.1	116			
Ethylbenzene	0.94	0.048	0.9634	0	97.9	67.9	127			
Xylenes, Total	2.9	0.096	2.890	0	98.6	60.6	134			
Surr: 4-Bromofluorobenzene	1.0		0.9634		104	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **1208B46-004AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **CentralOCD-2341-8-** Batch ID: **3494** RunNo: **5174**

Prep Date: **8/27/2012** Analysis Date: **8/29/2012** SeqNo: **147925** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.048	0.9634	0	95.7	67.2	113	1.34	14.3	
Toluene	0.95	0.048	0.9634	0	98.9	62.1	116	4.31	15.9	
Ethylbenzene	0.97	0.048	0.9634	0	101	67.9	127	3.25	14.4	
Xylenes, Total	2.9	0.096	2.890	0	102	60.6	134	3.33	12.6	
Surr: 4-Bromofluorobenzene	1.0		0.9634		108	80	120	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208B46**

Hall Environmental Analysis Laboratory, Inc.

24-Sep-12

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

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5200**	RunNo: **5200**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147952** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	21		20.00		106	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5200**	RunNo: **5200**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147953** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	113	80	120			
Toluene	23	1.0	20.00	0	113	80	120			
Ethylbenzene	23	1.0	20.00	0	114	80	120			
Xylenes, Total	69	2.0	60.00	0	115	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		105	55	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3574**	SampType: **MBLK**	TestCode: **EPA Method 8082: PCB's**
Client ID: **PBS**	Batch ID: **3574**	RunNo: **5278**
Prep Date: **8/31/2012**	Analysis Date: **9/4/2012**	SeqNo: **150347** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.020								
Aroclor 1221	ND	0.020								
Aroclor 1232	ND	0.020								
Aroclor 1242	ND	0.020								
Aroclor 1248	ND	0.020								
Aroclor 1254	ND	0.020								
Aroclor 1260	ND	0.020								
Surr: Decachlorobiphenyl	0.058		0.06250		93.2	17.3	122			

Sample ID **LCS-3574**	SampType: **LCS**	TestCode: **EPA Method 8082: PCB's**
Client ID: **LCSS**	Batch ID: **3574**	RunNo: **5278**
Prep Date: **8/31/2012**	Analysis Date: **9/4/2012**	SeqNo: **150348** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aroclor 1260	0.087	0.020	0.1250	0	69.2	25.1	115			
Surr: Decachlorobiphenyl	0.056		0.06250		90.4	17.3	122			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Z Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208B46**

Hall Environmental Analysis Laboratory, Inc.

24-Sep-12

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

Sample ID **mb-3494**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5213**	
Prep Date: **8/27/2012**	Analysis Date: **8/30/2012**	SeqNo: **148726**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-3494**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **3494**	RunNo: **5213**
Prep Date: **8/27/2012**	Analysis Date: **8/30/2012**	SeqNo: **148726** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		83.0	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		80.7	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.4	70	130			
Surr: Toluene-d8	0.36		0.5000		71.3	70	130			

Sample ID **lcs-3494**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **3494**	RunNo: **5213**
Prep Date: **8/27/2012**	Analysis Date: **8/30/2012**	SeqNo: **148751** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	97.8	70	130			
Toluene	0.93	0.050	1.000	0	92.7	80	120			
Surr: 1,2-Dichloroethane-d4	0.41		0.5000		82.5	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.5000		78.8	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.5	70	130			
Surr: Toluene-d8	0.38		0.5000		75.3	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **mb-3616**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3616**	RunNo: **5365**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	ND	0.50								
2-Chlorophenol	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2-Methylphenol	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenol	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.0		3.330		61.4	21.3	145			
Surr: 2-Fluorobiphenyl	0.80		1.670		48.1	20	131			
Surr: 2-Fluorophenol	1.5		3.330		44.4	11.9	130			
Surr: 4-Terphenyl-d14	0.83		1.670		49.8	25.1	149			
Surr: Nitrobenzene-d5	0.73		1.670		43.6	25.6	137			
Surr: Phenol-d5	1.5		3.330		46.3	20.3	132			

Sample ID **lcs-3616**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3616**	RunNo: **5365**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	2.1	0.50	3.330	0	63.3	43.8	89.1			
2-Chlorophenol	1.8	0.20	3.330	0	52.9	41.1	96.9			
4-Nitrophenol	2.5	0.25	3.330	0	75.2	44.2	107			
Pentachlorophenol	2.0	0.40	3.330	0	61.1	36.2	80			
Phenol	1.8	0.20	3.330	0	55.3	42.7	92.7			
Surr: 2,4,6-Tribromophenol	2.7		3.330		80.5	21.3	145			
Surr: 2-Fluorobiphenyl	1.0		1.670		59.9	20	131			
Surr: 2-Fluorophenol	1.7		3.330		49.7	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		71.0	25.1	149			
Surr: Nitrobenzene-d5	0.91		1.670		54.4	25.6	137			
Surr: Phenol-d5	2.0		3.330		60.2	20.3	132			

Sample ID **lcsd-3616**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3616**	RunNo: **5365**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152823** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **lcsd-3616**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3616**	RunNo: **5365**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	78.7	43.8	89.1	21.7	20	R
2-Chlorophenol	2.3	0.20	3.330	0	67.6	41.1	96.9	24.4	20	R
4-Nitrophenol	3.3	0.25	3.330	0	98.5	44.2	107	26.8	20	R
Pentachlorophenol	2.7	0.40	3.330	0	82.3	36.2	80	29.6	20	SR
Phenol	2.4	0.20	3.330	0	72.1	42.7	92.7	26.3	20	R
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.670		70.5	20	131	0	0	
Surr: 2-Fluorophenol	1.9		3.330		57.7	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.670		84.8	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.2		1.670		70.2	25.6	137	0	0	
Surr: Phenol-d5	2.5		3.330		75.9	20.3	132	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3614**	SampType: **MBLK**	TestCode: **EPA Method 8310: PAHs**
Client ID: **PBS**	Batch ID: **3614**	RunNo: **5386**
Prep Date: **9/5/2012**	Analysis Date: **9/10/2012**	SeqNo: **154322** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.25								
1-Methylnaphthalene	ND	0.25								
2-Methylnaphthalene	ND	0.25								
Acenaphthylene	ND	0.25								
Acenaphthene	ND	0.25								
Fluorene	ND	0.030								
Phenanthrene	ND	0.015								
Anthracene	ND	0.015								
Fluoranthene	ND	0.020								
Pyrene	ND	0.025								
Benz(a)anthracene	ND	0.010								
Chrysene	ND	0.011								
Benzo(b)fluoranthene	ND	0.010								
Benzo(k)fluoranthene	ND	0.010								
Benzo(a)pyrene	ND	0.010								
Dibenz(a,h)anthracene	ND	0.010								
Benzo(g,h,i)perylene	ND	0.010								
Indeno(1,2,3-cd)pyrene	ND	0.010								
Surr: Benzo(e)pyrene	0.42		0.5000		83.1	35.9	103			

Sample ID **LCS-3614**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS**	Batch ID: **3614**	RunNo: **5460**
Prep Date: **9/5/2012**	Analysis Date: **9/12/2012**	SeqNo: **156035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.4	0.25	2.000	0	70.4	32.4	87			
1-Methylnaphthalene	1.4	0.25	2.000	0	70.9	36.9	86.9			
2-Methylnaphthalene	1.4	0.25	2.000	0	70.8	34.4	87.4			
Acenaphthylene	1.4	0.25	2.000	0	68.8	38.9	84.7			
Acenaphthene	1.5	0.25	2.000	0	74.9	41.7	83.4			
Fluorene	0.11	0.030	0.2000	0	54.6	27.8	72.5			
Phenanthrene	0.074	0.015	0.1006	0	73.8	31.9	79.1			
Anthracene	0.071	0.015	0.1006	0	70.6	38.8	81.2			
Fluoranthene	0.18	0.020	0.2006	0	90.7	40.9	86			S
Pyrene	0.14	0.025	0.2000	0	67.8	21.4	90.4			
Benz(a)anthracene	0.016	0.010	0.02000	0	78.8	40.9	92.3			
Chrysene	0.069	0.011	0.1006	0	68.3	35.3	86.6			
Benzo(b)fluoranthene	0.020	0.010	0.02500	0	79.0	42.9	98.1			
Benzo(k)fluoranthene	0.012	0.010	0.01250	0	96.0	50.6	99			
Benzo(a)pyrene	0.011	0.010	0.01250	0	84.0	39.4	105			
Dibenz(a,h)anthracene	0.020	0.010	0.02500	0	81.0	40.5	100			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **LCS-3614**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS**	Batch ID: **3614**	RunNo: **5460**
Prep Date: **9/5/2012**	Analysis Date: **9/12/2012**	SeqNo: **156035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(g,h,i)perylene	0.020	0.010	0.02500	0	82.0	39.4	90.3			
Indeno(1,2,3-cd)pyrene	0.038	0.010	0.05002	0	75.5	39.3	94.7			
Surr: Benzo(e)pyrene	0.44		0.5000		88.1	35.9	103			

Sample ID **LCSD-3614**	SampType: **LCSD**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS02**	Batch ID: **3614**	RunNo: **5460**
Prep Date: **9/5/2012**	Analysis Date: **9/12/2012**	SeqNo: **156036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.2	0.25	2.000	0	60.2	32.4	87	15.6	20	
1-Methylnaphthalene	1.3	0.25	2.000	0	62.6	36.9	86.9	12.4	20	
2-Methylnaphthalene	1.3	0.25	2.000	0	64.6	34.4	87.4	9.19	20	
Acenaphthylene	1.4	0.25	2.000	0	69.3	38.9	84.7	0.652	20	
Acenaphthene	1.4	0.25	2.000	0	69.5	41.7	83.4	7.52	20	
Fluorene	0.11	0.030	0.2000	0	56.8	27.8	72.5	3.82	20	
Phenanthrene	0.064	0.015	0.1006	0	63.4	31.9	79.1	15.2	20	
Anthracene	0.071	0.015	0.1006	0	70.3	38.8	81.2	0.353	20	
[illegible]anthene	0.18	0.020	0.2006	0	91.6	40.9	86	0.957	20	S
[illegible]ene	0.12	0.025	0.2000	0	61.6	21.4	90.4	9.47	20	
Benz(a)anthracene	0.016	0.010	0.02000	0	77.5	40.9	92.3	1.60	20	
Chrysene	0.068	0.011	0.1006	0	67.6	35.3	86.6	1.10	20	
Benzo(b)fluoranthene	0.020	0.010	0.02500	0	79.0	42.9	98.1	0	20	
Benzo(k)fluoranthene	0.012	0.010	0.01250	0	98.0	50.6	99	2.06	20	
Benzo(a)pyrene	0.011	0.010	0.01250	0	84.0	39.4	105	0	20	
Dibenz(a,h)anthracene	0.020	0.010	0.02500	0	80.0	40.5	100	1.24	20	
Benzo(g,h,i)perylene	0.020	0.010	0.02500	0	81.0	39.4	90.3	1.23	20	
Indeno(1,2,3-cd)pyrene	0.037	0.010	0.05002	0	74.5	39.3	94.7	1.33	20	
Surr: Benzo(e)pyrene	0.45		0.5000		89.8	35.9	103	0		

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3620**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **3620**	RunNo: **5338**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152014** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-3620**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **3620**	RunNo: **5338**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152015** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	97.5	80	120			

Sample ID **1208B46-006AMS**	SampType: **MS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **CentralOCD-TZ-8-24**	Batch ID: **3620**	RunNo: **5338**
Prep Date: **9/5/2012**	Analysis Date: **9/6/2012**	SeqNo: **152023** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.56	0.16	0.1608	0.4085	92.3	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B46**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: OCD Central Landfarm Semiannual Sampling

Sample ID **MB-3508**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **3508**	RunNo: **5203**
Prep Date: **8/28/2012**	Analysis Date: **8/30/2012**	SeqNo: **147982** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Copper	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Selenium	ND	2.5								
Silver	ND	0.25								
Uranium	ND	5.0								
Zinc	ND	2.5								

Sample ID **LCS-3508**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **3508**	RunNo: **5203**
Prep Date: **8/28/2012**	Analysis Date: **8/30/2012**	SeqNo: **147983** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0	98.3	80	120			
Barium	22	0.10	25.00	0	89.9	80	120			
Cadmium	23	0.10	25.00	0	91.8	80	120			
Chromium	23	0.30	25.00	0	91.7	80	120			
Copper	22	0.30	25.00	0	89.6	80	120			
Iron	23	1.0	25.00	0	91.8	80	120			
Lead	23	0.25	25.00	0	91.7	80	120			
Manganese	22	0.10	25.00	0	88.3	80	120			
Selenium	26	2.5	25.00	0	104	80	120			
Silver	4.6	0.25	5.000	0	92.5	80	120			
Uranium	21	5.0	25.00	0	85.9	80	120			
Zinc	24	2.5	25.00	0	95.0	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208B46

Received by/date: CM 08/24/12

Logged By: Anne Thorne 8/24/2012 3:40:00 PM — Anne Thorne

Completed By: Anne Thorne 8/27/2012 — Anne Thorne

Reviewed By: AT /MG- 08/27/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833
email or Fax#: 505-722-0210

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type) Please provide EDD

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
OCD Central Landfarm Semiannual Sampling

Project #:
697-039-002

Project Manager:
Ed Riege

Sampler: C. Morgan
On Ice: ☑ Yes ☐ No
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1209846	Analysis Request: TPH (418.1)	BTEX (8021)	Chlorides (300.1)	DRO and GRO (8015M)	A and B of NMAC 3103 (see attached)	Air Bubbles (Y or N)
8-24-12	0925	soil	CentralOCD-237-8-24-12	4oz - 2	none	-001	X	X	X			
	0942	soil	CentralOCD-234-8-24-12	4oz - 2	none	-002	X	X	X			
	1005	soil	CentralOCD-8-24-12	4oz - 2	none	-003	X	X	X			
	1025	soil	CentralOCD-8-24-12	4oz - 2	none	-004	X	X	X			
	0952	soil	BD-8-24-12	4oz - 2	none	-005	X	X	X			
	1015	soil	CentralOCD-234-8-24-12MS	4oz - 1	none	-004	X	X	X			
	1035	soil	CentralOCD-234-8-24-12MSD	4oz - 1	none	-004	X	X	X			
8-24-12	0850	soil	CentralOCD-TZ-8-24-12	4oz - 2	none	-006	X	X	X	X	X	
	1100	water	EB-20120824	VOA - 3	HCL	-007		X				
	1055	water	FB-20120824	VOA - 3	HCL	-008		X				
		water	Trip Blank	VOA - 3	HCL	-009		X				

Date	Time	Relinquished by	Received by	Date	Time
8-24-12	1540				
Date:	Time:	Relinquished by:	Received by:	08/24/12	1540

Remarks: Please cc Grant Price (gprice@trihydro.com) with results. Call Grant @ 307-745-7474 w/ questions.

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 05, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling

OrderNo.: 1203901

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/23/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203901**
Date Reported: **4/5/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 1:20:00 PM
Lab ID: 1203901-001 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Toluene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Methyl tert-butyl ether (MTBE)	8.2	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Naphthalene	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 12:52:23 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 12:52:23 PM
Acetone	ND	10		µg/L	1	3/28/2012 12:52:23 PM
Bromobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Bromoform	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Bromomethane	ND	3.0		µg/L	1	3/28/2012 12:52:23 PM
2-Butanone	ND	10		µg/L	1	3/28/2012 12:52:23 PM
Carbon disulfide	ND	10		µg/L	1	3/28/2012 12:52:23 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Chlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Chloroethane	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
Chloroform	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Chloromethane	ND	3.0		µg/L	1	3/28/2012 12:52:23 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Dibromomethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
2-Hexanone	ND	10		µg/L	1	3/28/2012 12:52:23 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203901-001 **Matrix:** AQUEOUS

Client Sample ID: OW-13
Collection Date: 3/21/2012 1:20:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Isopropylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/28/2012 12:52:23 PM
Methylene Chloride	ND	3.0		µg/L	1	3/28/2012 12:52:23 PM
n-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Styrene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/28/2012 12:52:23 PM
Vinyl chloride	ND	1.0		µg/L	1	3/28/2012 12:52:23 PM
Xylenes, Total	ND	1.5		µg/L	1	3/28/2012 12:52:23 PM
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%REC	1	3/28/2012 12:52:23 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	3/28/2012 12:52:23 PM
Surr: Dibromofluoromethane	112	69.8-130		%REC	1	3/28/2012 12:52:23 PM
Surr: Toluene-d8	101	70-130		%REC	1	3/28/2012 12:52:23 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 2:38:00 PM
Lab ID: 1203901-002 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	2,300	50		µg/L	50	3/28/2012 2:19:58 PM
Toluene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Ethylbenzene	51	10		µg/L	10	3/28/2012 2:49:12 PM
Methyl tert-butyl ether (MTBE)	1,400	10		µg/L	10	3/28/2012 2:49:12 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Naphthalene	ND	20		µg/L	10	3/28/2012 2:49:12 PM
1-Methylnaphthalene	ND	40		µg/L	10	3/28/2012 2:49:12 PM
2-Methylnaphthalene	ND	40		µg/L	10	3/28/2012 2:49:12 PM
Acetone	ND	100		µg/L	10	3/28/2012 2:49:12 PM
Bromobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Bromodichloromethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Bromoform	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Bromomethane	ND	30		µg/L	10	3/28/2012 2:49:12 PM
2-Butanone	ND	100		µg/L	10	3/28/2012 2:49:12 PM
Carbon disulfide	ND	100		µg/L	10	3/28/2012 2:49:12 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Chlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Chloroethane	ND	20		µg/L	10	3/28/2012 2:49:12 PM
Chloroform	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Chloromethane	ND	30		µg/L	10	3/28/2012 2:49:12 PM
2-Chlorotoluene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
4-Chlorotoluene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
cis-1,2-DCE	ND	10		µg/L	10	3/28/2012 2:49:12 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/28/2012 2:49:12 PM
Dibromochloromethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Dibromomethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Dichlorodifluoromethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1-Dichloroethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
2,2-Dichloropropane	ND	20		µg/L	10	3/28/2012 2:49:12 PM
1,1-Dichloropropene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
2-Hexanone	ND	100		µg/L	10	3/28/2012 2:49:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203901-002 **Matrix:** AQUEOUS

Client Sample ID: OW-14
Collection Date: 3/21/2012 2:38:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Isopropylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/28/2012 2:49:12 PM
Methylene Chloride	ND	30		µg/L	10	3/28/2012 2:49:12 PM
n-Butylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
n-Propylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
sec-Butylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Styrene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
tert-Butylbenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/28/2012 2:49:12 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/28/2012 2:49:12 PM
trans-1,2-DCE	ND	10		µg/L	10	3/28/2012 2:49:12 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/28/2012 2:49:12 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/28/2012 2:49:12 PM
Vinyl chloride	ND	10		µg/L	10	3/28/2012 2:49:12 PM
Xylenes, Total	ND	15		µg/L	10	3/28/2012 2:49:12 PM
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	10	3/28/2012 2:49:12 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	10	3/28/2012 2:49:12 PM
Surr: Dibromofluoromethane	108	69.8-130		%REC	10	3/28/2012 2:49:12 PM
Surr: Toluene-d8	108	70-130		%REC	10	3/28/2012 2:49:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 2:10:00 PM
Lab ID: 1203901-003
Matrix: AQUEOUS
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Toluene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Methyl tert-butyl ether (MTBE)	620	10		µg/L	10	3/28/2012 3:48:17 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Naphthalene	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 4:17:45 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 4:17:45 PM
Acetone	ND	10		µg/L	1	3/28/2012 4:17:45 PM
Bromobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Bromoform	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Bromomethane	ND	3.0		µg/L	1	3/28/2012 4:17:45 PM
2-Butanone	ND	10		µg/L	1	3/28/2012 4:17:45 PM
Carbon disulfide	ND	10		µg/L	1	3/28/2012 4:17:45 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Chlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Chloroethane	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
Chloroform	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Chloromethane	ND	3.0		µg/L	1	3/28/2012 4:17:45 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Dibromomethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
2-Hexanone	ND	10		µg/L	1	3/28/2012 4:17:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203901-003 **Matrix:** AQUEOUS

Client Sample ID: OW-29
Collection Date: 3/21/2012 2:10:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Isopropylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/28/2012 4:17:45 PM
Methylene Chloride	ND	3.0		µg/L	1	3/28/2012 4:17:45 PM
n-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Styrene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/28/2012 4:17:45 PM
Vinyl chloride	ND	1.0		µg/L	1	3/28/2012 4:17:45 PM
Xylenes, Total	ND	1.5		µg/L	1	3/28/2012 4:17:45 PM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	3/28/2012 4:17:45 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	3/28/2012 4:17:45 PM
Surr: Dibromofluoromethane	107	69.8-130		%REC	1	3/28/2012 4:17:45 PM
Surr: Toluene-d8	99.2	70-130		%REC	1	3/28/2012 4:17:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 10:25:00 AM
Lab ID: 1203901-004 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Toluene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Methyl tert-butyl ether (MTBE)	1,600	20		µg/L	20	3/28/2012 5:16:19 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Naphthalene	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 5:45:32 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 5:45:32 PM
Acetone	ND	10		µg/L	1	3/28/2012 5:45:32 PM
Bromobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Bromoform	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Bromomethane	ND	3.0		µg/L	1	3/28/2012 5:45:32 PM
2-Butanone	ND	10		µg/L	1	3/28/2012 5:45:32 PM
Carbon disulfide	ND	10		µg/L	1	3/28/2012 5:45:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Chlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Chloroethane	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
Chloroform	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Chloromethane	ND	3.0		µg/L	1	3/28/2012 5:45:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Dibromomethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
2-Hexanone	ND	10		µg/L	1	3/28/2012 5:45:32 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203901-004 **Matrix:** AQUEOUS

Client Sample ID: OW-30
Collection Date: 3/21/2012 10:25:00 AM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Isopropylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/28/2012 5:45:32 PM
Methylene Chloride	ND	3.0		µg/L	1	3/28/2012 5:45:32 PM
n-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Styrene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/28/2012 5:45:32 PM
Vinyl chloride	ND	1.0		µg/L	1	3/28/2012 5:45:32 PM
Xylenes, Total	ND	1.5		µg/L	1	3/28/2012 5:45:32 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	3/28/2012 5:45:32 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	3/28/2012 5:45:32 PM
Surr: Dibromofluoromethane	106	69.8-130		%REC	1	3/28/2012 5:45:32 PM
Surr: Toluene-d8	100	70-130		%REC	1	3/28/2012 5:45:32 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

WO#: **1203901**

Hall Environmental Analysis Laboratory, Inc.

05-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1773**	RunNo: **1773**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49782** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203901**

05-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1773**	RunNo: **1773**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49782** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
-Trichloroethane	ND	1.0								
,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	69.8	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1773**	RunNo: **1773**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49784** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	84.1	126			
Toluene	19	1.0	20.00	0	95.7	80	120			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.6	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203901**

05-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

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

Client ID: **LCSW** Batch ID: **R1773** RunNo: **1773**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49784** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1203901-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **OW-13** Batch ID: **R1773** RunNo: **1773**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49903** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.4	71.1	135			
Toluene	18	1.0	20.00	0	92.1	74	121			
Chlorobenzene	18	1.0	20.00	0	91.4	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	93.9	76.3	127			
Trichloroethene (TCE)	19	1.0	20.00	0	94.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		114	70	130			
Surr: Dibromofluoromethane	11		10.00		110	69.8	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1203901-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **OW-13** Batch ID: **R1773** RunNo: **1773**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49907** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	71.1	135	1.38	21.9	
Toluene	18	1.0	20.00	0	89.9	74	121	2.48	18.5	
Chlorobenzene	18	1.0	20.00	0	87.6	70	130	4.24	17.7	
1,1-Dichloroethene	19	1.0	20.00	0	92.8	76.3	127	1.11	16.5	
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130	1.71	18.9	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		116	69.8	130	0	0	
Surr: Toluene-d8	9.5		10.00		95.2	70	130	0	0	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203901

Received by/date: MG 03/23/12

Logged By: Anne Thorne — 3/23/2012 11:07:00 AM — Anne Thorne

Completed By: Anne Thorne — 3/23/2012 — Anne Thorne

Reviewed By: 03/23/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

Client: Wes Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: T. Fleenor / S. Ukele

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1203901		Air Bubbles (Y or N)
3-21-12	1320	Water	OW-13	VOA - 4	HCl	-001	X	
	1438		OW-14			-002	X	
	1410		OW-29			-003	X	
↓	1025	↓	OW-30	↓	↓	-004	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-23-12	1107			03/23/12	1107
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 16, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203777

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/21/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203777**
Date Reported: **4/16/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To AL-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 7:40:00 AM
Lab ID: 1203777-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	26	1.0		mg/L	1	3/22/2012 11:55:16 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 11:55:16 AM
Surr: DNOP	112	61.3-164		%REC	1	3/22/2012 11:55:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	4.5	1.0		mg/L	20	3/27/2012 1:46:40 AM
Surr: BFB	97.2	69.3-120		%REC	20	3/27/2012 1:46:40 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	740	25		mg/L	50	3/21/2012 9:33:50 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	840	2.0		mg/L	1	3/27/2012 6:15:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Acenaphthylene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Aniline	840	50		µg/L	1	3/23/2012 4:29:28 PM
Anthracene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Azobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benz(a)anthracene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Benzoic acid	ND	100		µg/L	1	3/23/2012 4:29:28 PM
Benzyl alcohol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Carbazole	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Chloroaniline	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2-Chlorophenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Chrysene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Dibenzofuran	ND	50		µg/L	1	3/23/2012 4:29:28 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-001 **Matrix:** AQUEOUS

Client Sample ID: Infl To AL-1
Collection Date: 3/21/2012 7:40:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,2-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Diethyl phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Dimethyl phthalate	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/23/2012 4:29:28 PM
2,4-Dimethylphenol	400	50		µg/L	1	3/23/2012 4:29:28 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/23/2012 4:29:28 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/23/2012 4:29:28 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Fluoranthene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Fluorene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Hexachlorobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Hexachloroethane	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Isophorone	ND	50		µg/L	1	3/23/2012 4:29:28 PM
1-Methylnaphthalene	60	50		µg/L	1	3/23/2012 4:29:28 PM
2-Methylnaphthalene	85	50		µg/L	1	3/23/2012 4:29:28 PM
2-Methylphenol	2,500	500		µg/L	10	3/23/2012 6:59:39 PM
3+4-Methylphenol	5,300	500		µg/L	10	3/23/2012 6:59:39 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/23/2012 4:29:28 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/23/2012 4:29:28 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Naphthalene	76	50		µg/L	1	3/23/2012 4:29:28 PM
2-Nitroaniline	ND	50		µg/L	1	3/23/2012 4:29:28 PM
3-Nitroaniline	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Nitroaniline	ND	100		µg/L	1	3/23/2012 4:29:28 PM
Nitrobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2-Nitrophenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
4-Nitrophenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Pentachlorophenol	ND	100		µg/L	1	3/23/2012 4:29:28 PM
Phenanthrene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Phenol	11,000	500		µg/L	10	3/23/2012 6:59:39 PM
Pyrene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
Pyridine	ND	50		µg/L	1	3/23/2012 4:29:28 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/23/2012 4:29:28 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To AL-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 7:40:00 AM
Lab ID: 1203777-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2,4,6-Tribromophenol	94.4	18.1-138		%REC	1	3/23/2012 4:29:28 PM
Surr: 2-Fluorobiphenyl	83.9	25.9-101		%REC	1	3/23/2012 4:29:28 PM
Surr: 2-Fluorophenol	78.9	12.5-93.2		%REC	1	3/23/2012 4:29:28 PM
Surr: 4-Terphenyl-d14	91.4	29.5-112		%REC	1	3/23/2012 4:29:28 PM
Surr: Nitrobenzene-d5	88.4	20.5-120		%REC	1	3/23/2012 4:29:28 PM
Surr: Phenol-d5	58.0	11.5-73.2		%REC	1	3/23/2012 4:29:28 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	180	10		µg/L	10	3/26/2012 9:43:35 PM
Toluene	360	10		µg/L	10	3/26/2012 9:43:35 PM
Ethylbenzene	34	10		µg/L	10	3/26/2012 9:43:35 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2,4-Trimethylbenzene	73	10		µg/L	10	3/26/2012 9:43:35 PM
1,3,5-Trimethylbenzene	22	10		µg/L	10	3/26/2012 9:43:35 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Naphthalene	100	20		µg/L	10	3/26/2012 9:43:35 PM
1-Methylnaphthalene	71	40		µg/L	10	3/26/2012 9:43:35 PM
2-Methylnaphthalene	120	40		µg/L	10	3/26/2012 9:43:35 PM
Acetone	11,000	1,000		µg/L	100	3/28/2012 6:30:59 AM
Bromobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Bromodichloromethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Bromoform	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Bromomethane	ND	30		µg/L	10	3/26/2012 9:43:35 PM
2-Butanone	1,800	100		µg/L	10	3/26/2012 9:43:35 PM
Carbon disulfide	ND	100		µg/L	10	3/26/2012 9:43:35 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Chlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Chloroethane	ND	20		µg/L	10	3/26/2012 9:43:35 PM
Chloroform	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Chloromethane	ND	30		µg/L	10	3/26/2012 9:43:35 PM
2-Chlorotoluene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
4-Chlorotoluene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
cis-1,2-DCE	ND	10		µg/L	10	3/26/2012 9:43:35 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/26/2012 9:43:35 PM
Dibromochloromethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Dibromomethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Dichlorodifluoromethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-001 **Matrix:** AQUEOUS

Client Sample ID: Infl To AL-1
Collection Date: 3/21/2012 7:40:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1-Dichloroethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
2,2-Dichloropropane	ND	20		µg/L	10	3/26/2012 9:43:35 PM
1,1-Dichloropropene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
2-Hexanone	ND	100		µg/L	10	3/26/2012 9:43:35 PM
Isopropylbenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/26/2012 9:43:35 PM
Methylene Chloride	ND	30		µg/L	10	3/26/2012 9:43:35 PM
n-Butylbenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
n-Propylbenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
sec-Butylbenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Styrene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
tert-Butylbenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/26/2012 9:43:35 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/26/2012 9:43:35 PM
trans-1,2-DCE	ND	10		µg/L	10	3/26/2012 9:43:35 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/26/2012 9:43:35 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/26/2012 9:43:35 PM
Vinyl chloride	ND	10		µg/L	10	3/26/2012 9:43:35 PM
Xylenes, Total	250	15		µg/L	10	3/26/2012 9:43:35 PM
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	10	3/26/2012 9:43:35 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	10	3/26/2012 9:43:35 PM
Surr: Dibromofluoromethane	116	69.8-130		%REC	10	3/26/2012 9:43:35 PM
Surr: Toluene-d8	95.9	70-130		%REC	10	3/26/2012 9:43:35 PM
SM4500-H+B: PH						Analyst: **JLF**
pH	9.13	1.68	*H	pH units	1	3/23/2012 2:22:19 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To AL-2
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 1:40:00 PM
Lab ID: 1203777-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	8.0	1.0		mg/L	1	3/22/2012 12:20:41 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 12:20:41 PM
Surr: DNOP	115	61.3-164		%REC	1	3/22/2012 12:20:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.2	1.0		mg/L	20	3/27/2012 3:18:32 AM
Surr: BFB	109	69.3-120		%REC	20	3/27/2012 3:18:32 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	1,400	50		mg/L	100	3/24/2012 12:03:11 AM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	440	2.0		mg/L	1	3/27/2012 6:15:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Acenaphthylene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Aniline	200	50		µg/L	1	3/23/2012 4:59:24 PM
Anthracene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Azobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benz(a)anthracene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Benzoic acid	ND	100		µg/L	1	3/23/2012 4:59:24 PM
Benzyl alcohol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Carbazole	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Chloroaniline	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Chlorophenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Chrysene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Dibenzofuran	ND	50		µg/L	1	3/23/2012 4:59:24 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-002 **Matrix:** AQUEOUS

Client Sample ID: Infl To AL-2
Collection Date: 3/20/2012 1:40:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,2-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Diethyl phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Dimethyl phthalate	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/23/2012 4:59:24 PM
2,4-Dimethylphenol	98	50		µg/L	1	3/23/2012 4:59:24 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/23/2012 4:59:24 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/23/2012 4:59:24 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Fluoranthene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Fluorene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Hexachlorobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Hexachloroethane	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Isophorone	ND	50		µg/L	1	3/23/2012 4:59:24 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Methylphenol	900	50		µg/L	1	3/23/2012 4:59:24 PM
3+4-Methylphenol	1,300	500		µg/L	10	3/23/2012 7:29:45 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/23/2012 4:59:24 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/23/2012 4:59:24 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Naphthalene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Nitroaniline	ND	50		µg/L	1	3/23/2012 4:59:24 PM
3-Nitroaniline	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Nitroaniline	ND	100		µg/L	1	3/23/2012 4:59:24 PM
Nitrobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2-Nitrophenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
4-Nitrophenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Pentachlorophenol	ND	100		µg/L	1	3/23/2012 4:59:24 PM
Phenanthrene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Phenol	3,400	500		µg/L	10	3/23/2012 7:29:45 PM
Pyrene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
Pyridine	ND	50		µg/L	1	3/23/2012 4:59:24 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/23/2012 4:59:24 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To AL-2
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 1:40:00 PM
Lab ID: 1203777-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2,4,6-Tribromophenol	101	18.1-138		%REC	1	3/23/2012 4:59:24 PM
Surr: 2-Fluorobiphenyl	79.1	25.9-101		%REC	1	3/23/2012 4:59:24 PM
Surr: 2-Fluorophenol	71.6	12.5-93.2		%REC	1	3/23/2012 4:59:24 PM
Surr: 4-Terphenyl-d14	89.8	29.5-112		%REC	1	3/23/2012 4:59:24 PM
Surr: Nitrobenzene-d5	87.3	20.5-120		%REC	1	3/23/2012 4:59:24 PM
Surr: Phenol-d5	51.7	11.5-73.2		%REC	1	3/23/2012 4:59:24 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Toluene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Ethylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Naphthalene	ND	20		µg/L	10	3/26/2012 10:12:57 PM
1-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 10:12:57 PM
2-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 10:12:57 PM
Acetone	4,400	500		µg/L	50	3/28/2012 7:00:12 AM
Bromobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Bromodichloromethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Bromoform	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Bromomethane	ND	30		µg/L	10	3/26/2012 10:12:57 PM
2-Butanone	260	100		µg/L	10	3/26/2012 10:12:57 PM
Carbon disulfide	ND	100		µg/L	10	3/26/2012 10:12:57 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Chlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Chloroethane	ND	20		µg/L	10	3/26/2012 10:12:57 PM
Chloroform	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Chloromethane	ND	30		µg/L	10	3/26/2012 10:12:57 PM
2-Chlorotoluene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
4-Chlorotoluene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
cis-1,2-DCE	ND	10		µg/L	10	3/26/2012 10:12:57 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/26/2012 10:12:57 PM
Dibromochloromethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Dibromomethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Dichlorodifluoromethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-002 **Matrix:** AQUEOUS

Client Sample ID: Infl To AL-2
Collection Date: 3/20/2012 1:40:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1-Dichloroethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
2,2-Dichloropropane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1-Dichloropropene	ND	20		µg/L	10	3/26/2012 10:12:57 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
2-Hexanone	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Isopropylbenzene	ND	100		µg/L	10	3/26/2012 10:12:57 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
4-Methyl-2-pentanone	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Methylene Chloride	ND	100		µg/L	10	3/26/2012 10:12:57 PM
n-Butylbenzene	ND	30		µg/L	10	3/26/2012 10:12:57 PM
n-Propylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
sec-Butylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Styrene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
tert-Butylbenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Tetrachloroethene (PCE)	ND	20		µg/L	10	3/26/2012 10:12:57 PM
trans-1,2-DCE	ND	10		µg/L	10	3/26/2012 10:12:57 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
1,2,3-Trichloropropane	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Vinyl chloride	ND	20		µg/L	10	3/26/2012 10:12:57 PM
Xylenes, Total	ND	10		µg/L	10	3/26/2012 10:12:57 PM
Surr: 1,2-Dichloroethane-d4	96.8	15		µg/L	10	3/26/2012 10:12:57 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	3/26/2012 10:12:57 PM
Surr: Dibromofluoromethane	114	70-130		%REC	10	3/26/2012 10:12:57 PM
Surr: Toluene-d8	98.0	69.8-130		%REC	10	3/26/2012 10:12:57 PM
SM4500-H+B: PH		70-130		%REC	10	3/26/2012 10:12:57 PM
pH	7.52	1.68	H	pH units	1	Analyst: **JLF** 3/23/2012 2:25:50 PM

Qualifiers:

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J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-003 **Matrix:** AQUEOUS

Client Sample ID: Infl to EP-1
Collection Date: 3/20/2012 2:00:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	12	1.0		mg/L	1	3/22/2012 12:45:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 12:45:47 PM
Surr: DNOP	112	61.3-164		%REC	1	3/22/2012 12:45:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	1.0		mg/L	20	3/27/2012 3:48:45 AM
Surr: BFB	77.7	69.3-120		%REC	20	3/27/2012 3:48:45 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	60	5.0	*	mg/L	50	3/21/2012 10:23:29 PM
Chloride	2,600	100		mg/L	200	3/24/2012 12:15:36 AM
Nitrogen, Nitrite (As N)	2.8	1.0		mg/L	10	3/21/2012 10:11:05 PM
Bromide	4.7	1.0		mg/L	10	3/21/2012 10:11:05 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/21/2012 10:11:05 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2012 10:11:05 PM
Sulfate	820	25		mg/L	50	3/21/2012 10:23:29 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.051	0.0020		mg/L	1	4/2/2012 7:00:54 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2012 7:00:54 PM
Calcium	130	20		mg/L	20	4/2/2012 7:03:21 PM
Chromium	ND	0.0060		mg/L	1	4/3/2012 5:15:20 PM
Copper	ND	0.0060		mg/L	1	4/2/2012 7:00:54 PM
Iron	2.5	0.40	*	mg/L	20	4/2/2012 7:03:21 PM
Lead	ND	0.0050		mg/L	1	4/3/2012 5:15:20 PM
Magnesium	45	1.0		mg/L	1	4/2/2012 7:00:54 PM
Manganese	0.27	0.0020	*	mg/L	1	4/2/2012 7:00:54 PM
Potassium	150	20		mg/L	20	4/2/2012 7:03:21 PM
Silver	ND	0.0050		mg/L	1	4/5/2012 8:37:01 AM
Sodium	1,500	20		mg/L	20	4/2/2012 7:03:21 PM
Zinc	0.071	0.010		mg/L	1	4/3/2012 5:15:20 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.30	0.0020		mg/L	1	3/26/2012 3:52:16 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 3:52:16 PM
Chromium	0.022	0.0060		mg/L	1	3/26/2012 3:52:16 PM
Copper	0.030	0.0060		mg/L	1	3/26/2012 3:52:16 PM
Iron	12	0.40	*	mg/L	20	3/28/2012 2:47:10 PM
Lead	0.0058	0.0050		mg/L	1	3/26/2012 3:52:16 PM
Manganese	0.31	0.0020	*	mg/L	1	3/26/2012 3:52:16 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 3:52:16 PM
Zinc	0.36	0.010		mg/L	1	3/26/2012 3:52:16 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

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- H Holding times for preparation or analysis exceeded
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-003 **Matrix:** AQUEOUS

Client Sample ID: Infl to EP-1
Collection Date: 3/20/2012 2:00:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.013	0.0020	*	mg/L	2	4/12/2012 6:30:14 PM
Selenium	0.022	0.0020		mg/L	2	4/13/2012 2:35:17 PM
Uranium	0.0027	0.0020		mg/L	2	4/12/2012 6:30:14 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.021	0.0025	*	mg/L	2.5	4/4/2012 5:13:49 PM
Selenium	0.022	0.0025		mg/L	2.5	4/4/2012 5:13:49 PM
Uranium	0.0051	0.0025		mg/L	2.5	4/4/2012 5:13:49 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 3:57:30 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	610	2.0		mg/L	1	3/27/2012 6:15:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Acenaphthylene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Aniline	360	50		µg/L	1	3/23/2012 5:29:21 PM
Anthracene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Azobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benz(a)anthracene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Benzoic acid	ND	100		µg/L	1	3/23/2012 5:29:21 PM
Benzyl alcohol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Carbazole	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Chloroaniline	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Chlorophenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Chrysene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/23/2012 5:29:21 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 2:00:00 PM
Lab ID: 1203777-003
Matrix: AQUEOUS
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Dibenzofuran	ND	50		µg/L	1	3/23/2012 5:29:21 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Diethyl phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Dimethyl phthalate	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/23/2012 5:29:21 PM
2,4-Dimethylphenol	170	50		µg/L	1	3/23/2012 5:29:21 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/23/2012 5:29:21 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/23/2012 5:29:21 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Fluoranthene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Fluorene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Hexachlorobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Hexachloroethane	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Isophorone	ND	50		µg/L	1	3/23/2012 5:29:21 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Methylphenol	1,600	500		µg/L	10	3/23/2012 7:59:48 PM
3+4-Methylphenol	2,200	500		µg/L	10	3/23/2012 7:59:48 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/23/2012 5:29:21 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/23/2012 5:29:21 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Naphthalene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Nitroaniline	ND	50		µg/L	1	3/23/2012 5:29:21 PM
3-Nitroaniline	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Nitroaniline	ND	100		µg/L	1	3/23/2012 5:29:21 PM
Nitrobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2-Nitrophenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
4-Nitrophenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Pentachlorophenol	ND	100		µg/L	1	3/23/2012 5:29:21 PM
Phenanthrene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Phenol	6,100	500		µg/L	10	3/23/2012 7:59:48 PM
Pyrene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Pyridine	ND	50		µg/L	1	3/23/2012 5:29:21 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/23/2012 5:29:21 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203777-003 **Matrix:** AQUEOUS

Client Sample ID: Infl to EP-1
Collection Date: 3/20/2012 2:00:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/23/2012 5:29:21 PM
Surr: 2,4,6-Tribromophenol	100	18.1-138		%REC	1	3/23/2012 5:29:21 PM
Surr: 2-Fluorobiphenyl	83.0	25.9-101		%REC	1	3/23/2012 5:29:21 PM
Surr: 2-Fluorophenol	73.6	12.5-93.2		%REC	1	3/23/2012 5:29:21 PM
Surr: 4-Terphenyl-d14	90.0	29.5-112		%REC	1	3/23/2012 5:29:21 PM
Surr: Nitrobenzene-d5	84.4	20.5-120		%REC	1	3/23/2012 5:29:21 PM
Surr: Phenol-d5	52.2	11.5-73.2		%REC	1	3/23/2012 5:29:21 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Toluene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Ethylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Naphthalene	ND	20		µg/L	10	3/26/2012 10:42:17 PM
1-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 10:42:17 PM
2-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 10:42:17 PM
Acetone	3,100	500		µg/L	50	3/28/2012 7:29:21 AM
Bromobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Bromodichloromethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Bromoform	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Bromomethane	ND	30		µg/L	10	3/26/2012 10:42:17 PM
2-Butanone	250	100		µg/L	10	3/26/2012 10:42:17 PM
Carbon disulfide	ND	100		µg/L	10	3/26/2012 10:42:17 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Chlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Chloroethane	ND	20		µg/L	10	3/26/2012 10:42:17 PM
Chloroform	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Chloromethane	ND	30		µg/L	10	3/26/2012 10:42:17 PM
2-Chlorotoluene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
4-Chlorotoluene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
cis-1,2-DCE	ND	10		µg/L	10	3/26/2012 10:42:17 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/26/2012 10:42:17 PM
Dibromochloromethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Dibromomethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 2:00:00 PM
Lab ID: 1203777-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Dichlorodifluoromethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1-Dichloroethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
2,2-Dichloropropane	ND	20		µg/L	10	3/26/2012 10:42:17 PM
1,1-Dichloropropene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
2-Hexanone	ND	100		µg/L	10	3/26/2012 10:42:17 PM
Isopropylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/26/2012 10:42:17 PM
Methylene Chloride	ND	30		µg/L	10	3/26/2012 10:42:17 PM
n-Butylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
n-Propylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
sec-Butylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Styrene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
tert-Butylbenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/26/2012 10:42:17 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/26/2012 10:42:17 PM
trans-1,2-DCE	ND	10		µg/L	10	3/26/2012 10:42:17 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/26/2012 10:42:17 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/26/2012 10:42:17 PM
Vinyl chloride	ND	10		µg/L	10	3/26/2012 10:42:17 PM
Xylenes, Total	ND	15		µg/L	10	3/26/2012 10:42:17 PM
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	10	3/26/2012 10:42:17 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	10	3/26/2012 10:42:17 PM
Surr: Dibromofluoromethane	110	69.8-130		%REC	10	3/26/2012 10:42:17 PM
Surr: Toluene-d8	100	70-130		%REC	10	3/26/2012 10:42:17 PM
SM4500-H+B: PH						Analyst: **JLF**
pH	7.79	1.68	H	pH units	1	3/23/2012 2:29:23 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Anatek Labs, Inc.

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

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

Batch #: 120323033
Project Name: 1203777

Analytical Results Report

Sample Number 120323033-001 **Sampling Date** 3/20/2012 **Date/Time Received** 3/23/2012 1:11 PM
Client Sample ID 1203777-001F / INFL TO AL-1 **Sampling Time** 7:40 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1900	mg/L	125	4/4/2012	JLU	EPA 410.4	

Sample Number 120323033-002 **Sampling Date** 3/20/2012 **Date/Time Received** 3/23/2012 1:11 PM
Client Sample ID 1203777-002F / INFL TO AL-2 **Sampling Time** 1:40 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1090	mg/L	50	4/4/2012	JLU	EPA 410.4	

Sample Number 120323033-003 **Sampling Date** 3/20/2012 **Date/Time Received** 3/23/2012 1:11 PM
Client Sample ID 1203777-003H / INFL TO EP-1 **Sampling Time** 2:00 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
COD	1600	mg/L	125	4/4/2012	JLU	EPA 410.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52370** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52371** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	48	1.0	50.00	0	96.3	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	49	1.0	50.00	0	97.1	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	47	1.0	50.00	0	93.3	85	115			
Sodium	48	1.0	50.00	0	95.1	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Lead	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	97.7	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53521** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53522** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.098	0.0050	0.1000	0	98.2	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53523** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53524** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	85	115			

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1230**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.51	0.0020	0.5000	0.0004200	101	85	115			
Chromium	0.49	0.0060	0.5000	0.0006400	98.8	85	115			
Copper	0.50	0.0060	0.5000	0.001800	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.024	0.0010	0.02500	0	95.9	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			
Uranium	0.026	0.0010	0.02500	0.001260	97.5	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59446** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID	**1203798-001DMS**	SampType: **MS**			TestCode: **EPA 200.8: Dissolved Metals**					
Client ID:	**BatchQC**	Batch ID: **R2139**			RunNo: **2139**					
Prep Date:		Analysis Date: **4/13/2012**			SeqNo: **59450**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0.005266	91.2	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1930**
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**	SeqNo: **53748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1217**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1217**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1203766-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1203766-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46697** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.0010	0.005000	0	111	75	125	2.60	20	

Qualifiers:

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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45120** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45121** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.9	90	110			
Bromide	2.4	0.10	2.500	0	94.7	90	110			
...gen, Nitrate (As N)	2.4	0.10	2.500	0	97.0	90	110			
...phorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID **LCSD**	SampType: **LCSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS02**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110	2.06	20	
Chloride	4.7	0.50	5.000	0	94.4	90	110	1.21	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.5	90	110	0.669	20	
Bromide	2.4	0.10	2.500	0	95.3	90	110	0.658	20	
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.5	90	110	0.580	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.4	90	110	0.448	20	
Sulfate	9.7	0.50	10.00	0	97.4	90	110	0.462	20	

Sample ID **1203750-001FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	25	5.0	25.00	1.873	94.2	72.9	113			
Bromide	150	5.0	125.0	31.23	94.3	76	114			
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	96.5	82.8	116			

Qualifiers:

- ... Value exceeds Maximum Contaminant Level.
- ... Value above quantitation range
- J Analyte detected below quantitation limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203777**

Hall Environmental Analysis Laboratory, Inc.

16-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203750-001FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	230	25	250.0	0	92.7	79.3	108			

Sample ID **1203750-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	26	5.0	25.00	1.873	94.9	72.9	113	0.763	20	
Bromide	150	5.0	125.0	31.23	94.8	76	114	0.457	20	
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	97.0	82.8	116	0.495	20	
Phosphorus, Orthophosphate (As P	230	25	250.0	0	93.3	79.3	108	0.696	20	

Sample ID **1203795-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	95.4	72.9	113			
Chloride	15	0.50	5.000	9.762	106	78	107			
Nitrogen, Nitrite (As N)	0.89	0.10	1.000	0	89.2	77.6	111			
Bromide	2.4	0.10	2.500	0	96.5	76	114			
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	101	82.8	116			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.7	79.3	108			

Sample ID **1203795-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	96.1	72.9	113	0.353	20	
Chloride	15	0.50	5.000	9.762	107	78	107	0.325	20	S
Nitrogen, Nitrite (As N)	0.90	0.10	1.000	0	89.7	77.6	111	0.590	20	
Bromide	2.4	0.10	2.500	0	96.7	76	114	0.146	20	
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	102	82.8	116	0.457	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.6	79.3	108	0.913	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47441** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47442** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.0	90	110			

Qualifiers:

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QC SUMMARY REPORT

WO#: **1203777**

Hall Environmental Analysis Laboratory, Inc.

16-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1190**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	61.3	164			

Sample ID **LCS-1190**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.9	74	157			
Surr: DNOP	0.50		0.5000		101	61.3	164			

Sample ID **LCSD-1190**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157	10.5	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1707**	RunNo: **1707**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48117** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		91.7	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1707**	RunNo: **1707**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48118** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.59	0.050	0.5000	0	117	101	123			
Surr: BFB	19		20.00		97.2	69.3	120			

Sample ID **1203777-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl To AL-1**	Batch ID: **R1707**	RunNo: **1707**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	1.0	10.00	4.496	120	75.4	121			
Surr: BFB	430		400.0		107	69.3	120			

Sample ID **1203777-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl To AL-1**	Batch ID: **R1707**	RunNo: **1707**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	1.0	10.00	4.496	129	75.4	121	5.72	10.5	S
Surr: BFB	350		400.0		87.2	69.3	120	0	0	

Qualifiers:

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- Value above quantitation range
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QC SUMMARY REPORT

WO#: **1203777**

Hall Environmental Analysis Laboratory, Inc.

16-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**	
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		114	69.8	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48300** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.3	84.1	126			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	96.1	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		108	69.8	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100ng lcs-c**	SampType: **LCS**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **LCSW**	Batch ID: **R1715**			RunNo: **1715**					
Prep Date:	Analysis Date: **3/26/2012**			SeqNo: **48300**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **b4**	SampType: **MBLK**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **PBW**	Batch ID: **R1753**			RunNo: **1753**					
Prep Date:	Analysis Date: **3/27/2012**			SeqNo: **49319**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acetone	ND	10								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **mb-1187**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **1187**	RunNo: **1636**	
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46382**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
benzyl phthalate	ND	10								
azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	5.0								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	5.0								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **mb-1187**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **1187**	RunNo: **1636**	
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46382**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	5.0								
3+4-Methylphenol	ND	5.0								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	5.0								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	5.0								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	5.0								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		92.2	18.1	138			
Surr: 2-Fluorobiphenyl	75		100.0		74.8	25.9	101			
Surr: 2-Fluorophenol	140		200.0		72.0	12.5	93.2			
Surr: 4-Terphenyl-d14	81		100.0		81.5	29.5	112			
Surr: Nitrobenzene-d5	86		100.0		86.5	20.5	120			
Surr: Phenol-d5	110		200.0		54.7	11.5	73.2			

Qualifiers:

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- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **lcs-1187** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **1187** RunNo: **1636**

Prep Date: **3/22/2012** Analysis Date: **3/23/2012** SeqNo: **46383** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.5	37.7	119			
4-Chloro-3-methylphenol	76	10	100.0	0	75.5	48.8	104			
2-Chlorophenol	73	10	100.0	0	72.7	38.2	109			
1,4-Dichlorobenzene	69	5.0	100.0	0	69.4	33.7	99.1			
2,4-Dinitrotoluene	79	5.0	100.0	0	79.4	39.9	125			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.3	43.8	95.1			
4-Nitrophenol	33	10	100.0	0	32.6	21.7	68.6			
Pentachlorophenol	47	5.0	100.0	0	47.1	26.7	107			
Phenol	47	10	100.0	0	47.3	23.9	65.8			
Pyrene	84	10	100.0	0	84.4	45.7	107			
1,2,4-Trichlorobenzene	80	10	100.0	0	80.1	30.8	104			
Surr: 2,4,6-Tribromophenol	87		100.0		87.0	18.1	138			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	25.9	101			
Surr: 2-Fluorophenol	56		100.0		55.7	12.5	93.2			
Surr: 4-Terphenyl-d14	90		100.0		90.2	29.5	112			
Surr: Nitrobenzene-d5	82		100.0		81.6	20.5	120			
Surr: Phenol-d5	50		100.0		50.4	11.5	73.2			

Sample ID **lcsd-1187** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **1187** RunNo: **1636**

Prep Date: **3/22/2012** Analysis Date: **3/23/2012** SeqNo: **46385** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.4	37.7	119	2.60	20	
4-Chloro-3-methylphenol	73	10	100.0	0	72.6	48.8	104	3.97	20	
2-Chlorophenol	72	10	100.0	0	72.2	38.2	109	0.635	20	
1,4-Dichlorobenzene	66	5.0	100.0	0	65.6	33.7	99.1	5.54	20	
2,4-Dinitrotoluene	77	5.0	100.0	0	77.4	39.9	125	2.60	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	77.6	43.8	95.1	0.898	20	
4-Nitrophenol	33	10	100.0	0	32.5	21.7	68.6	0.368	20	
Pentachlorophenol	48	5.0	100.0	0	48.5	26.7	107	2.80	20	
Phenol	49	10	100.0	0	48.7	23.9	65.8	3.00	20	
Pyrene	81	10	100.0	0	80.5	45.7	107	4.73	20	
1,2,4-Trichlorobenzene	80	10	100.0	0	79.7	30.8	104	0.501	20	
Surr: 2,4,6-Tribromophenol	94		100.0		93.9	18.1	138	0	0	
Surr: 2-Fluorobiphenyl	84		100.0		84.3	25.9	101	0	0	
Surr: 2-Fluorophenol	58		100.0		57.8	12.5	93.2	0	0	
Surr: 4-Terphenyl-d14	89		100.0		89.1	29.5	112	0	0	
Surr: Nitrobenzene-d5	80		100.0		80.3	20.5	120	0	0	
Surr: Phenol-d5	49		100.0		49.5	11.5	73.2	0	0	

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1186**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **1186**	RunNo: **1697**							
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47881**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-1186**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **1186**	RunNo: **1697**							
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47882**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-1186**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **1186**	RunNo: **1697**							
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47883**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	89.6	84.6	115.4			

Sample ID **LCSD-1186**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **1186**	RunNo: **1697**							
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47884**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	90.4	84.6	115.4	0.842	20	

Sample ID **1203744-001ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **1186**	RunNo: **1697**							
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47886**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	10	2.0						0.300	20	

Qualifiers:

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- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203777**

16-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203750-001f dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R1673**	RunNo: **1673**							
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47341**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.29	1.68						0		H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203777

Received by/date: 03/21/12

Logged By: Ashley Gallegos — 3/21/2012 12:47:00 PM

Completed By: Ashley Gallegos — 3/21/2012 2:14:53 PM

Reviewed By: IO 03/21/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 6

(<2 or >12 unless noted)

Adjusted?

Checked by: IO

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: West Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: T. Fleener / S. Ukele

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1203777	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	BTEX + MTBE + TPH (GRO)									Air Bubbles (Y or N)
3-20-12	0740	W	Infl to AL-1	various	various	-001	X	X		X	X		X	X					
3-20-12	1340	W	Infl to AL-2	Various	Various	-002	X	X		X	X		X	X					
3-20-12	1400	W	Infl to EP-1	Various	Various	-003	X	X	X	X	X	X		X					

Date	Time	Relinquished by:	Received by:	Date	Time
3/21/12	0830			3-21-12	0830
3/21/12			03/21/12		1247

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 18, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203798

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/21/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203798**
Date Reported: **4/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 1:20:00 PM
Lab ID: 1203798-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	4.7	1.0		mg/L	1	3/22/2012 1:36:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 1:36:03 PM
Surr: DNOP	116	61.3-164		%REC	1	3/22/2012 1:36:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	3/27/2012 3:17:42 PM
Surr: BFB	92.6	69.3-120		%REC	10	3/27/2012 3:17:42 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.014	0.0020		mg/L	1	4/2/2012 7:06:32 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2012 7:06:32 PM
Chromium	0.0081	0.0060		mg/L	1	4/3/2012 5:20:44 PM
Copper	0.010	0.0060		mg/L	1	4/2/2012 7:06:32 PM
Iron	0.16	0.020		mg/L	1	4/2/2012 7:06:32 PM
Lead	ND	0.0050		mg/L	1	4/3/2012 5:20:44 PM
Manganese	0.027	0.0020		mg/L	1	4/2/2012 7:06:32 PM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:12:29 AM
Zinc	0.033	0.010		mg/L	1	4/3/2012 5:20:44 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.022	0.0020		mg/L	1	3/26/2012 3:54:43 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 3:54:43 PM
Chromium	0.045	0.0060		mg/L	1	3/26/2012 3:54:43 PM
Copper	0.080	0.0060		mg/L	1	3/26/2012 3:54:43 PM
Iron	1.1	0.10	*	mg/L	5	3/28/2012 2:49:42 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 3:54:43 PM
Manganese	0.035	0.0020		mg/L	1	3/26/2012 3:54:43 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 3:54:43 PM
Zinc	0.092	0.010		mg/L	1	3/26/2012 3:54:43 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0037	0.0010		mg/L	1	4/12/2012 6:33:58 PM
Selenium	0.0053	0.0010		mg/L	1	4/13/2012 2:39:02 PM
Uranium	0.0013	0.0010		mg/L	1	4/12/2012 6:33:58 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0061	0.0025		mg/L	2.5	4/4/2012 5:02:01 PM
Selenium	0.0057	0.0025		mg/L	2.5	4/4/2012 5:02:01 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 5:02:01 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/29/2012 3:30:02 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	130	2.0		mg/L	1	3/27/2012 6:15:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-001 **Matrix:** AQUEOUS

Client Sample ID: Pilot Eff
Collection Date: 3/20/2012 1:20:00 PM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Toluene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Ethylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Naphthalene	ND	20		µg/L	10	3/26/2012 11:40:42 PM
1-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 11:40:42 PM
2-Methylnaphthalene	ND	40		µg/L	10	3/26/2012 11:40:42 PM
Acetone	230	100		µg/L	10	3/26/2012 11:40:42 PM
Bromobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Bromodichloromethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Bromoform	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Bromomethane	ND	30		µg/L	10	3/26/2012 11:40:42 PM
2-Butanone	ND	100		µg/L	10	3/26/2012 11:40:42 PM
Carbon disulfide	ND	100		µg/L	10	3/26/2012 11:40:42 PM
Carbon Tetrachloride	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Chlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Chloroethane	ND	20		µg/L	10	3/26/2012 11:40:42 PM
Chloroform	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Chloromethane	ND	30		µg/L	10	3/26/2012 11:40:42 PM
2-Chlorotoluene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
4-Chlorotoluene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
cis-1,2-DCE	ND	10		µg/L	10	3/26/2012 11:40:42 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/26/2012 11:40:42 PM
Dibromochloromethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Dibromomethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Dichlorodifluoromethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1-Dichloroethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1-Dichloroethene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2-Dichloropropane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,3-Dichloropropane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
2,2-Dichloropropane	ND	20		µg/L	10	3/26/2012 11:40:42 PM
1,1-Dichloropropene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Hexachlorobutadiene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
2-Hexanone	ND	100		µg/L	10	3/26/2012 11:40:42 PM

Qualifiers:
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 1:20:00 PM
Lab ID: 1203798-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Isopropylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
4-Isopropyltoluene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/26/2012 11:40:42 PM
Methylene Chloride	ND	30		µg/L	10	3/26/2012 11:40:42 PM
n-Butylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
n-Propylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
sec-Butylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Styrene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
tert-Butylbenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/26/2012 11:40:42 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/26/2012 11:40:42 PM
trans-1,2-DCE	ND	10		µg/L	10	3/26/2012 11:40:42 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Trichloroethene (TCE)	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Trichlorofluoromethane	ND	10		µg/L	10	3/26/2012 11:40:42 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/26/2012 11:40:42 PM
Vinyl chloride	ND	10		µg/L	10	3/26/2012 11:40:42 PM
Xylenes, Total	ND	15		µg/L	10	3/26/2012 11:40:42 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	10	3/26/2012 11:40:42 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	3/26/2012 11:40:42 PM
Surr: Dibromofluoromethane	114	69.8-130		%REC	10	3/26/2012 11:40:42 PM
Surr: Toluene-d8	96.1	70-130		%REC	10	3/26/2012 11:40:42 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS Eff
Collection Date: 3/21/2012 7:50:00 AM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	23	1.0		mg/L	1	3/22/2012 2:01:08 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 2:01:08 PM
Surr: DNOP	114	61.3-164		%REC	1	3/22/2012 2:01:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	120	25		mg/L	500	3/27/2012 3:48:00 PM
Surr: BFB	99.1	69.3-120		%REC	500	3/27/2012 3:48:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	220	10	*	mg/L	100	3/28/2012 6:02:17 AM
Chloride	700	25		mg/L	50	3/21/2012 8:44:12 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	3/21/2012 8:31:48 PM
Bromide	4.6	1.0		mg/L	10	3/21/2012 8:31:48 PM
Nitrogen, Nitrate (As N)	2.1	1.0		mg/L	10	3/21/2012 8:31:48 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2012 8:31:48 PM
Sulfate	470	5.0		mg/L	10	3/21/2012 8:31:48 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.037	0.0020		mg/L	1	4/2/2012 7:12:51 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2012 7:12:51 PM
Calcium	40	1.0		mg/L	1	4/2/2012 7:12:51 PM
Chromium	ND	0.0060		mg/L	1	4/3/2012 5:26:54 PM
Copper	ND	0.0060		mg/L	1	4/2/2012 7:12:51 PM
Iron	0.50	0.020	*	mg/L	1	4/2/2012 7:12:51 PM
Lead	ND	0.0050		mg/L	1	4/3/2012 5:26:54 PM
Magnesium	15	1.0		mg/L	1	4/2/2012 7:12:51 PM
Manganese	0.17	0.0020	*	mg/L	1	4/2/2012 7:12:51 PM
Potassium	160	5.0		mg/L	5	4/2/2012 7:26:09 PM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:15:30 AM
Sodium	790	10		mg/L	10	4/6/2012 7:18:28 AM
Zinc	0.024	0.010		mg/L	1	4/3/2012 5:26:54 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.10	0.0020		mg/L	1	3/26/2012 3:57:14 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 3:57:14 PM
Chromium	0.0077	0.0060		mg/L	1	3/26/2012 3:57:14 PM
Copper	0.0060	0.0060		mg/L	1	3/26/2012 3:57:14 PM
Iron	3.3	0.10	*	mg/L	5	3/28/2012 2:52:46 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 3:57:14 PM
Manganese	0.17	0.0020	*	mg/L	1	3/26/2012 3:57:14 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 3:57:14 PM
Zinc	0.047	0.010		mg/L	1	3/26/2012 3:57:14 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 7:50:00 AM
Lab ID: 1203798-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0063	0.0010		mg/L	1	4/12/2012 6:37:43 PM
Selenium	0.051	0.0050	*	mg/L	5	4/13/2012 2:42:47 PM
Uranium	ND	0.0010		mg/L	1	4/12/2012 6:37:43 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.013	0.0025	*	mg/L	2.5	4/4/2012 5:05:57 PM
Selenium	0.016	0.0025		mg/L	2.5	4/4/2012 5:05:57 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 5:05:57 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.0017	0.00020		mg/L	1	3/23/2012 3:59:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Acenaphthylene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Aniline	630	100		µg/L	10	3/23/2012 8:29:38 PM
Anthracene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Azobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benz(a)anthracene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Benzoic acid	ND	20		µg/L	1	3/23/2012 5:59:22 PM
Benzyl alcohol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Carbazole	12	10		µg/L	1	3/23/2012 5:59:22 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
4-Chloroaniline	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2-Chlorophenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Chrysene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Dibenzofuran	ND	10		µg/L	1	3/23/2012 5:59:22 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM

Qualifiers:
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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS Eff
Collection Date: 3/21/2012 7:50:00 AM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Diethyl phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Dimethyl phthalate	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/23/2012 5:59:22 PM
2,4-Dimethylphenol	330	100		µg/L	10	3/23/2012 8:29:38 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/23/2012 5:59:22 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/23/2012 5:59:22 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Fluoranthene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Fluorene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Hexachlorobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Hexachloroethane	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Isophorone	ND	10		µg/L	1	3/23/2012 5:59:22 PM
1-Methylnaphthalene	73	10		µg/L	1	3/23/2012 5:59:22 PM
2-Methylnaphthalene	110	10		µg/L	1	3/23/2012 5:59:22 PM
2-Methylphenol	2,200	100		µg/L	10	3/23/2012 8:29:38 PM
3+4-Methylphenol	4,000	1,000		µg/L	100	3/25/2012 2:02:10 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/23/2012 5:59:22 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/23/2012 5:59:22 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Naphthalene	170	10		µg/L	1	3/23/2012 5:59:22 PM
2-Nitroaniline	ND	10		µg/L	1	3/23/2012 5:59:22 PM
3-Nitroaniline	ND	10		µg/L	1	3/23/2012 5:59:22 PM
4-Nitroaniline	ND	20		µg/L	1	3/23/2012 5:59:22 PM
Nitrobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2-Nitrophenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
4-Nitrophenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Pentachlorophenol	ND	20		µg/L	1	3/23/2012 5:59:22 PM
Phenanthrene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Phenol	8,600	1,000		µg/L	100	3/25/2012 2:02:10 PM
Pyrene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Pyridine	ND	10		µg/L	1	3/23/2012 5:59:22 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/23/2012 5:59:22 PM
Surr: 2,4,6-Tribromophenol	70.2	18.1-138		%REC	1	3/23/2012 5:59:22 PM

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/21/2012 7:50:00 AM
Lab ID: 1203798-002
Matrix: AQUEOUS
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	55.3	25.9-101		%REC	1	3/23/2012 5:59:22 PM
Surr: 2-Fluorophenol	17.6	12.5-93.2		%REC	1	3/23/2012 5:59:22 PM
Surr: 4-Terphenyl-d14	74.2	29.5-112		%REC	1	3/23/2012 5:59:22 PM
Surr: Nitrobenzene-d5	78.7	20.5-120		%REC	1	3/23/2012 5:59:22 PM
Surr: Phenol-d5	18.0	11.5-73.2		%REC	1	3/23/2012 5:59:22 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	11,000	1,000		µg/L	1000	3/27/2012 2:07:14 AM
Toluene	20,000	1,000		µg/L	1000	3/27/2012 2:07:14 AM
Ethylbenzene	1,300	100		µg/L	100	3/27/2012 2:36:32 AM
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2,4-Trimethylbenzene	900	100		µg/L	100	3/27/2012 2:36:32 AM
1,3,5-Trimethylbenzene	270	100		µg/L	100	3/27/2012 2:36:32 AM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Naphthalene	320	200		µg/L	100	3/27/2012 2:36:32 AM
1-Methylnaphthalene	ND	400		µg/L	100	3/27/2012 2:36:32 AM
2-Methylnaphthalene	ND	400		µg/L	100	3/27/2012 2:36:32 AM
Acetone	14,000	1,000		µg/L	100	3/27/2012 2:36:32 AM
Bromobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Bromodichloromethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Bromoform	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Bromomethane	ND	300		µg/L	100	3/27/2012 2:36:32 AM
2-Butanone	2,400	1,000		µg/L	100	3/27/2012 2:36:32 AM
Carbon disulfide	ND	1,000		µg/L	100	3/27/2012 2:36:32 AM
Carbon Tetrachloride	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Chlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Chloroethane	ND	200		µg/L	100	3/27/2012 2:36:32 AM
Chloroform	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Chloromethane	ND	300		µg/L	100	3/27/2012 2:36:32 AM
2-Chlorotoluene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
4-Chlorotoluene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
cis-1,2-DCE	ND	100		µg/L	100	3/27/2012 2:36:32 AM
cis-1,3-Dichloropropene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	3/27/2012 2:36:32 AM
Dibromochloromethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Dibromomethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2-Dichlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,3-Dichlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,4-Dichlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Dichlorodifluoromethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,1-Dichloroethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS Eff
Collection Date: 3/21/2012 7:50:00 AM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1-Dichloroethene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2-Dichloropropane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,3-Dichloropropane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
2,2-Dichloropropane	ND	200		µg/L	100	3/27/2012 2:36:32 AM
1,1-Dichloropropene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Hexachlorobutadiene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
2-Hexanone	ND	1,000		µg/L	100	3/27/2012 2:36:32 AM
Isopropylbenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
4-Isopropyltoluene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
4-Methyl-2-pentanone	ND	1,000		µg/L	100	3/27/2012 2:36:32 AM
Methylene Chloride	ND	300		µg/L	100	3/27/2012 2:36:32 AM
n-Butylbenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
n-Propylbenzene	130	100		µg/L	100	3/27/2012 2:36:32 AM
sec-Butylbenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Styrene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
tert-Butylbenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	3/27/2012 2:36:32 AM
Tetrachloroethene (PCE)	ND	100		µg/L	100	3/27/2012 2:36:32 AM
trans-1,2-DCE	ND	100		µg/L	100	3/27/2012 2:36:32 AM
trans-1,3-Dichloropropene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,1,1-Trichloroethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,1,2-Trichloroethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Trichloroethene (TCE)	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Trichlorofluoromethane	ND	100		µg/L	100	3/27/2012 2:36:32 AM
1,2,3-Trichloropropane	ND	200		µg/L	100	3/27/2012 2:36:32 AM
Vinyl chloride	ND	100		µg/L	100	3/27/2012 2:36:32 AM
Xylenes, Total	7,800	150		µg/L	100	3/27/2012 2:36:32 AM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	100	3/27/2012 2:36:32 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	100	3/27/2012 2:36:32 AM
Surr: Dibromofluoromethane	112	69.8-130		%REC	100	3/27/2012 2:36:32 AM
Surr: Toluene-d8	101	70-130		%REC	100	3/27/2012 2:36:32 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JLF**
Conductivity	5,100	0.010		µmhos/cm	1	3/27/2012 10:05:14 AM
SM4500-H+B: PH						Analyst: **JLF**
pH	8.90	1.68	*H	pH units	1	3/23/2012 2:32:58 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 2:10:00 PM
Lab ID: 1203798-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	15	1.0		mg/L	1	3/22/2012 2:26:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 2:26:28 PM
Surr: DNOP	113	61.3-164		%REC	1	3/22/2012 2:26:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	3/27/2012 4:18:17 PM
Surr: BFB	80.0	69.3-120		%REC	10	3/27/2012 4:18:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	57	5.0	*	mg/L	50	3/21/2012 9:09:01 PM
Chloride	2,200	100		mg/L	200	3/28/2012 6:14:42 AM
Nitrogen, Nitrite (As N)	1.2	1.0		mg/L	10	3/21/2012 8:56:37 PM
Bromide	5.0	1.0		mg/L	10	3/21/2012 8:56:37 PM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	3/21/2012 8:56:37 PM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	3/21/2012 8:56:37 PM
Sulfate	780	25		mg/L	50	3/21/2012 9:09:01 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.053	0.0020		mg/L	1	4/2/2012 7:31:03 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2012 7:31:03 PM
Calcium	130	20		mg/L	20	4/2/2012 7:33:29 PM
Chromium	ND	0.0060		mg/L	1	4/3/2012 5:37:57 PM
Copper	ND	0.0060		mg/L	1	4/2/2012 7:31:03 PM
Iron	2.8	0.40	*	mg/L	20	4/2/2012 7:33:29 PM
Lead	0.0051	0.0050		mg/L	1	4/3/2012 5:37:57 PM
Magnesium	44	1.0		mg/L	1	4/2/2012 7:31:03 PM
Manganese	0.28	0.0020	*	mg/L	1	4/2/2012 7:31:03 PM
Potassium	150	20		mg/L	20	4/2/2012 7:33:29 PM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:21:21 AM
Sodium	1,500	20		mg/L	20	4/2/2012 7:33:29 PM
Zinc	0.088	0.010		mg/L	1	4/3/2012 5:37:57 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.29	0.0020		mg/L	1	3/26/2012 4:01:30 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:01:30 PM
Chromium	0.021	0.0060		mg/L	1	3/26/2012 4:01:30 PM
Copper	0.026	0.0060		mg/L	1	3/26/2012 4:01:30 PM
Iron	12	0.40	*	mg/L	20	3/28/2012 2:55:31 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:01:30 PM
Manganese	0.30	0.0020	*	mg/L	1	3/26/2012 4:01:30 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:01:30 PM
Zinc	0.35	0.010		mg/L	1	3/26/2012 4:01:30 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 3/20/2012 2:10:00 PM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.013	0.0020	*	mg/L	2	4/12/2012 6:48:47 PM
Selenium	0.022	0.0020		mg/L	2	4/13/2012 2:52:12 PM
Uranium	0.0026	0.0020		mg/L	2	4/16/2012 3:20:27 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.020	0.0025	*	mg/L	2.5	4/4/2012 5:09:53 PM
Selenium	0.021	0.0025		mg/L	2.5	4/4/2012 5:09:53 PM
Uranium	0.0049	0.0025		mg/L	2.5	4/4/2012 5:09:53 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.0046	0.00020	*	mg/L	1	3/23/2012 4:01:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Acenaphthylene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Aniline	380	50		µg/L	1	3/23/2012 6:29:29 PM
Anthracene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Azobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benz(a)anthracene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benzo(a)pyrene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Benzoic acid	ND	100		µg/L	1	3/23/2012 6:29:29 PM
Benzyl alcohol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Butyl benzyl phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Carbazole	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Chloroaniline	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Chloronaphthalene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Chlorophenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Chrysene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Di-n-butyl phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Di-n-octyl phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Dibenzofuran	ND	50		µg/L	1	3/23/2012 6:29:29 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 2:10:00 PM
Lab ID: 1203798-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Diethyl phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Dimethyl phthalate	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2,4-Dichlorophenol	ND	100		µg/L	1	3/23/2012 6:29:29 PM
2,4-Dimethylphenol	180	50		µg/L	1	3/23/2012 6:29:29 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	3/23/2012 6:29:29 PM
2,4-Dinitrophenol	ND	100		µg/L	1	3/23/2012 6:29:29 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Fluoranthene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Fluorene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Hexachlorobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Hexachlorobutadiene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Hexachloroethane	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Isophorone	ND	50		µg/L	1	3/23/2012 6:29:29 PM
1-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Methylnaphthalene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Methylphenol	1,400	500		µg/L	10	3/25/2012 1:32:54 PM
3+4-Methylphenol	2,100	500		µg/L	10	3/25/2012 1:32:54 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	3/23/2012 6:29:29 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	3/23/2012 6:29:29 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Naphthalene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Nitroaniline	ND	50		µg/L	1	3/23/2012 6:29:29 PM
3-Nitroaniline	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Nitroaniline	ND	100		µg/L	1	3/23/2012 6:29:29 PM
Nitrobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2-Nitrophenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
4-Nitrophenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Pentachlorophenol	ND	100		µg/L	1	3/23/2012 6:29:29 PM
Phenanthrene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Phenol	5,400	500		µg/L	10	3/25/2012 1:32:54 PM
Pyrene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Pyridine	ND	50		µg/L	1	3/23/2012 6:29:29 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	3/23/2012 6:29:29 PM
Surr: 2,4,6-Tribromophenol	98.3	18.1-138		%REC	1	3/23/2012 6:29:29 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203798-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 3/20/2012 2:10:00 PM
Received Date: 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	90.5	25.9-101		%REC	1	3/23/2012 6:29:29 PM
Surr: 2-Fluorophenol	75.4	12.5-93.2		%REC	1	3/23/2012 6:29:29 PM
Surr: 4-Terphenyl-d14	88.8	29.5-112		%REC	1	3/23/2012 6:29:29 PM
Surr: Nitrobenzene-d5	91.6	20.5-120		%REC	1	3/23/2012 6:29:29 PM
Surr: Phenol-d5	53.6	11.5-73.2		%REC	1	3/23/2012 6:29:29 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Toluene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Ethylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Naphthalene	ND	20		µg/L	10	3/27/2012 3:35:06 AM
1-Methylnaphthalene	ND	40		µg/L	10	3/27/2012 3:35:06 AM
2-Methylnaphthalene	ND	40		µg/L	10	3/27/2012 3:35:06 AM
Acetone	3,100	500		µg/L	50	3/28/2012 7:58:34 AM
Bromobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Bromodichloromethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Bromoform	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Bromomethane	ND	30		µg/L	10	3/27/2012 3:35:06 AM
2-Butanone	220	100		µg/L	10	3/27/2012 3:35:06 AM
Carbon disulfide	ND	100		µg/L	10	3/27/2012 3:35:06 AM
Carbon Tetrachloride	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Chlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Chloroethane	ND	20		µg/L	10	3/27/2012 3:35:06 AM
Chloroform	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Chloromethane	ND	30		µg/L	10	3/27/2012 3:35:06 AM
2-Chlorotoluene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
4-Chlorotoluene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
cis-1,2-DCE	ND	10		µg/L	10	3/27/2012 3:35:06 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	3/27/2012 3:35:06 AM
Dibromochloromethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Dibromomethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Dichlorodifluoromethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,1-Dichloroethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 2:10:00 PM
Lab ID: 1203798-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1-Dichloroethene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2-Dichloropropane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,3-Dichloropropane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
2,2-Dichloropropane	ND	20		µg/L	10	3/27/2012 3:35:06 AM
1,1-Dichloropropene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Hexachlorobutadiene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
2-Hexanone	ND	100		µg/L	10	3/27/2012 3:35:06 AM
Isopropylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
4-Isopropyltoluene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	3/27/2012 3:35:06 AM
Methylene Chloride	ND	30		µg/L	10	3/27/2012 3:35:06 AM
n-Butylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
n-Propylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
sec-Butylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Styrene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
tert-Butylbenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	3/27/2012 3:35:06 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	3/27/2012 3:35:06 AM
trans-1,2-DCE	ND	10		µg/L	10	3/27/2012 3:35:06 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Trichloroethene (TCE)	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Trichlorofluoromethane	ND	10		µg/L	10	3/27/2012 3:35:06 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	3/27/2012 3:35:06 AM
Vinyl chloride	ND	10		µg/L	10	3/27/2012 3:35:06 AM
Xylenes, Total	ND	15		µg/L	10	3/27/2012 3:35:06 AM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	10	3/27/2012 3:35:06 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	10	3/27/2012 3:35:06 AM
Surr: Dibromofluoromethane	121	69.8-130		%REC	10	3/27/2012 3:35:06 AM
Surr: Toluene-d8	94.6	70-130		%REC	10	3/27/2012 3:35:06 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

March 27, 2012

Date Received : March 23, 2012
Description :

ESC Sample # : L566604-01

Sample ID : 1203798-001F PILOT EFF

Site ID :

Collected By :
Collection Date : 03/20/12 13:20

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	350	10.	mg/l	410.4	03/27/12	1

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

Reported: 03/27/12 12:19 Printed: 03/27/12 12:19

ESC
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L566604

March 27, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG584812	03/27/12 10:16

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	26.0	25.0	3.54	5	L566677-02	WG584812
COD	mg/l	25.0	22.0	12.4*	5	L566516-01	WG584812

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	244.	106.	90-110	WG584812

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	236.	244.	103.	90-110	3.33	5	WG584812

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	412.	0	400	103.	90-110	L566533-01	WG584812

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	416.	412.	104.	90-110	0.966	5	L566533-01	WG584812

Batch number /Run number / Sample number cross reference

WG584812: R2089933: L566604-01

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52370** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52371** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
[illegible]um	48	1.0	50.00	0	96.3	85	115			
[illegible]per	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	49	1.0	50.00	0	97.1	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	47	1.0	50.00	0	93.3	85	115			
Sodium	48	1.0	50.00	0	95.1	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Lead	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	97.7	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	52	1.0	50.00	0	104	85	115			

Sample ID **1203801-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55290** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.072	0.0050	0.1000	0	71.5	70	130			

Sample ID **1203801-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55291** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.053	0.0050	0.1000	0	52.7	70	130	30.4	20	SR

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1230**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.51	0.0020	0.5000	0.0004200	101	85	115			
[illegible]mium	0.49	0.0060	0.5000	0.0006400	98.8	85	115			
[illegible]er	0.50	0.0060	0.5000	0.001800	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.024	0.0010	0.02500	0	95.9	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **Pilot Eff**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			
Uranium	0.026	0.0010	0.02500	0.001260	97.5	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59446** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **Pilot Eff**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59450** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0.005266	91.2	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2166**	RunNo: **2166**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60402** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2166**	RunNo: **2166**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60403** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.023	0.0010	0.02500	0	92.2	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**		TestCode: **200.8 ICPMS Metals:Total**		
Client ID: **PBW**	Batch ID: **1230**		RunNo: **1930**		
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**		SeqNo: **53748**	Units: **mg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1217**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **PBW**	Batch ID: **1217**	RunNo: **1649**							
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46664**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1217**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **LCSW**	Batch ID: **1217**	RunNo: **1649**							
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46665**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1203766-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**							
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46696**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1203766-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**							
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46697**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.0010	0.005000	0	111	75	125	2.60	20	

Sample ID **MB-1297**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **PBW**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50512**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1297**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **LCSW**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50513**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.6	80	120			

Sample ID **1203721-004AMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50515**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.8	75	125			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203721-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50516** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.8	75	125	0.996	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45120** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45121** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.9	90	110			
Bromide	2.4	0.10	2.500	0	94.7	90	110			
...nen, Nitrate (As N)	2.4	0.10	2.500	0	97.0	90	110			
...phorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID **LCSD**	SampType: **LCSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS02**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110	2.06	20	
Chloride	4.7	0.50	5.000	0	94.4	90	110	1.21	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.5	90	110	0.669	20	
Bromide	2.4	0.10	2.500	0	95.3	90	110	0.658	20	
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.5	90	110	0.580	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.4	90	110	0.448	20	
Sulfate	9.7	0.50	10.00	0	97.4	90	110	0.462	20	

Sample ID **1203750-001FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1603**	RunNo: **1603**
Prep Date:	Analysis Date: **3/21/2012**	SeqNo: **45124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	25	5.0	25.00	1.873	94.2	72.9	113			
Bromide	150	5.0	125.0	31.23	94.3	76	114			
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	96.5	82.8	116			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203750-001FMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	230	25	250.0	0	92.7	79.3	108			

Sample ID **1203750-001FMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	26	5.0	25.00	1.873	94.9	72.9	113	0.763	20	
Bromide	150	5.0	125.0	31.23	94.8	76	114	0.457	20	
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	97.0	82.8	116	0.495	20	
Phosphorus, Orthophosphate (As P	230	25	250.0	0	93.3	79.3	108	0.696	20	

Sample ID **1203795-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	95.4	72.9	113			
Chloride	15	0.50	5.000	9.762	106	78	107			
Nitrogen, Nitrite (As N)	0.89	0.10	1.000	0	89.2	77.6	111			
Bromide	2.4	0.10	2.500	0	96.5	76	114			
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	101	82.8	116			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.7	79.3	108			

Sample ID **1203795-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	96.1	72.9	113	0.353	20	
Chloride	15	0.50	5.000	9.762	107	78	107	0.325	20	S
Nitrogen, Nitrite (As N)	0.90	0.10	1.000	0	89.7	77.6	111	0.590	20	
Bromide	2.4	0.10	2.500	0	96.7	76	114	0.146	20	
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	102	82.8	116	0.457	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.6	79.3	108	0.913	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R1735** RunNo: **1735**

Prep Date: Analysis Date: **3/27/2012** SeqNo: **48783** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48783**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48784**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.6	90	110			
Chloride	4.7	0.50	5.000	0	93.1	90	110			

Sample ID **1203962-001CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48802**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.69	0.10	0.5000	0.2249	92.2	72.9	113			

Sample ID **1203962-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48803**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.69	0.10	0.5000	0.2249	92.7	72.9	113	0.395	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48837**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48838**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.7	0.50	5.000	0	94.8	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203798**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203975-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **48847** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.68	0.10	0.5000	0.1727	101	72.9	113			
Chloride	5.9	0.50	5.000	1.140	95.0	78	107			

Sample ID **1203975-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **48848** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.1727	99.9	72.9	113	0.500	20	
Chloride	5.9	0.50	5.000	1.140	94.9	78	107	0.0636	20	

Sample ID **1203994-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **48856** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2686	98.8	72.9	113			
Chloride	20	0.50	5.000	14.51	106	78	107			

Sample ID **1203994-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **48857** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.77	0.10	0.5000	0.2686	100	72.9	113	1.00	20	
Chloride	20	0.50	5.000	14.51	109	78	107	0.898	20	S

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1190**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	61.3	164			

Sample ID **LCS-1190**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.9	74	157			
Surr: DNOP	0.50		0.5000		101	61.3	164			

Sample ID **LCSD-1190**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157	10.5	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49064** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.2	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0	113	101	123			
Surr: BFB	16		20.00		79.3	69.3	120			

Sample ID **1203798-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS Eff**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49127** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	350	25	250.0	117.5	94.6	75.4	121			
Surr: BFB	9,700		10,000		97.0	69.3	120			

Sample ID **1203798-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS Eff**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	350	25	250.0	117.5	93.2	75.4	121	0.965	10.5	
Surr: BFB	8,200		10,000		81.8	69.3	120	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
n disulfide	ND	10								
on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		114	69.8	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48300** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.3	84.1	126			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	96.1	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48300** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		108	69.8	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1753**	RunNo: **1753**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49319** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acetone	ND	10								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.8		10.00		98.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **mb-1187**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **1187**	RunNo: **1636**	
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46382**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	5.0								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	5.0								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	5.0								
2,4-Dinitrotoluene	ND	5.0								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **mb-1187**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **1187**	RunNo: **1636**
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46382** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	5.0								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	5.0								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	5.0								
3+4-Methylphenol	ND	5.0								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
[illegible]aniline	ND	10								
[illegible]troaniline	ND	20								
Nitrobenzene	ND	5.0								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	5.0								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	5.0								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		92.2	18.1	138			
Surr: 2-Fluorobiphenyl	75		100.0		74.8	25.9	101			
Surr: 2-Fluorophenol	140		200.0		72.0	12.5	93.2			
Surr: 4-Terphenyl-d14	81		100.0		81.5	29.5	112			
Surr: Nitrobenzene-d5	86		100.0		86.5	20.5	120			
Surr: Phenol-d5	110		200.0		54.7	11.5	73.2			

Qualifiers:

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **lcs-1187**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **1187**	RunNo: **1636**
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46383** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.5	37.7	119			
4-Chloro-3-methylphenol	76	10	100.0	0	75.5	48.8	104			
2-Chlorophenol	73	10	100.0	0	72.7	38.2	109			
1,4-Dichlorobenzene	69	5.0	100.0	0	69.4	33.7	99.1			
2,4-Dinitrotoluene	79	5.0	100.0	0	79.4	39.9	125			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.3	43.8	95.1			
4-Nitrophenol	33	10	100.0	0	32.6	21.7	68.6			
Pentachlorophenol	47	5.0	100.0	0	47.1	26.7	107			
Phenol	47	10	100.0	0	47.3	23.9	65.8			
Pyrene	84	10	100.0	0	84.4	45.7	107			
1,2,4-Trichlorobenzene	80	10	100.0	0	80.1	30.8	104			
Surr: 2,4,6-Tribromophenol	87		100.0		87.0	18.1	138			
Surr: 2-Fluorobiphenyl	84		100.0		83.6	25.9	101			
Surr: 2-Fluorophenol	56		100.0		55.7	12.5	93.2			
Surr: 4-Terphenyl-d14	90		100.0		90.2	29.5	112			
Surr: Nitrobenzene-d5	82		100.0		81.6	20.5	120			
Surr: Phenol-d5	50		100.0		50.4	11.5	73.2			

Sample ID **lcsd-1187**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **1187**	RunNo: **1636**
Prep Date: **3/22/2012**	Analysis Date: **3/23/2012**	SeqNo: **46385** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.4	37.7	119	2.60	20	
4-Chloro-3-methylphenol	73	10	100.0	0	72.6	48.8	104	3.97	20	
2-Chlorophenol	72	10	100.0	0	72.2	38.2	109	0.635	20	
1,4-Dichlorobenzene	66	5.0	100.0	0	65.6	33.7	99.1	5.54	20	
2,4-Dinitrotoluene	77	5.0	100.0	0	77.4	39.9	125	2.60	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	77.6	43.8	95.1	0.898	20	
4-Nitrophenol	33	10	100.0	0	32.5	21.7	68.6	0.368	20	
Pentachlorophenol	48	5.0	100.0	0	48.5	26.7	107	2.80	20	
Phenol	49	10	100.0	0	48.7	23.9	65.8	3.00	20	
Pyrene	81	10	100.0	0	80.5	45.7	107	4.73	20	
1,2,4-Trichlorobenzene	80	10	100.0	0	79.7	30.8	104	0.501	20	
Surr: 2,4,6-Tribromophenol	94		100.0		93.9	18.1	138	0	0	
Surr: 2-Fluorobiphenyl	84		100.0		84.3	25.9	101	0	0	
Surr: 2-Fluorophenol	58		100.0		57.8	12.5	93.2	0	0	
Surr: 4-Terphenyl-d14	89		100.0		89.1	29.5	112	0	0	
Surr: Nitrobenzene-d5	80		100.0		80.3	20.5	120	0	0	
Surr: Phenol-d5	49		100.0		49.5	11.5	73.2	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1186**	SampType: **MBLK**	TestCode: **SM5210B: BOD**
Client ID: **PBW**	Batch ID: **1186**	RunNo: **1697**
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47881** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-1186**	SampType: **MBLK**	TestCode: **SM5210B: BOD**
Client ID: **PBW**	Batch ID: **1186**	RunNo: **1697**
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47882** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-1186**	SampType: **LCS**	TestCode: **SM5210B: BOD**
Client ID: **LCSW**	Batch ID: **1186**	RunNo: **1697**
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	89.6	84.6	115.4			

Sample ID **LCSD-1186**	SampType: **LCSD**	TestCode: **SM5210B: BOD**
Client ID: **LCSS02**	Batch ID: **1186**	RunNo: **1697**
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47884** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	90.4	84.6	115.4	0.842	20	

Sample ID **1203744-001ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**
Client ID: **BatchQC**	Batch ID: **1186**	RunNo: **1697**
Prep Date: **3/22/2012**	Analysis Date: **3/27/2012**	SeqNo: **47886** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	10	2.0						0.300	20	

Qualifiers:

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID	**1203902-001b dup**	SampType: **DUP**			TestCode: **EPA 120.1: Specific Conductance**				
Client ID:	**BatchQC**	Batch ID: **R1724**			RunNo: **1724**				
Prep Date:		Analysis Date: **3/27/2012**			SeqNo: **48557**		Units: **µmhos/cm**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	900	0.010						0.946	20	

Sample ID	**1203953-001c dup**	SampType: **DUP**			TestCode: **EPA 120.1: Specific Conductance**				
Client ID:	**BatchQC**	Batch ID: **R1724**			RunNo: **1724**				
Prep Date:		Analysis Date: **3/27/2012**			SeqNo: **48566**		Units: **µmhos/cm**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	1,400	0.010						0.934	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203798**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID	**1203750-001f dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R1673**		RunNo: **1673**					
Prep Date:		Analysis Date: **3/23/2012**		SeqNo: **47341**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.29	1.68						0		H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203798

Received by/date: MQ 03/21/12

Logged By: **Ashley Gallegos** 3/21/2012 1:00:00 PM AG

Completed By: **Ashley Gallegos** 3/21/2012 3:09:25 PM AG

Reviewed By: AT 03/22/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☑	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

COEF, 0035 - ADDED 1mL HNO3 FOR ACCEPTABLE PH AT 03/22/12

# of preserved bottles checked for pH: 10 (<2 or >12 unless noted)

Adjusted? YES

Checked by: AT

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____

By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: ____

Client Instructions: ____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

Chain-of-Custody Record

Client: West Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: T. Fleener/S. Ukele

On Ice: ☒ Yes ☐ No

Sample Temperature: 2.1°

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1203798	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	BTEX + MTBE + TMB											Air Bubbles (Y or N)
3-20-12	1320	W	Pilot Eff	Various	Various	-001	X	X	X	X										
3-21-12	0750	W	NAPIS Eff			-002	X	X	X		X	X								
3-20-12	1410	W	AL-2 to EP-1	Various	Various	-003	X	X	X		X		X							

Date	Time	Relinquished by:	Received by:	Date	Time
3/21/12	0830			3-21-12	0830
3-21-12			Michelle Garcia	03/21/12	1300

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 18, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203766

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/21/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203766**
Date Reported: **4/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 3:25:00 PM
Lab ID: 1203766-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	3.5	1.0		mg/L	1	3/22/2012 10:39:05 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 10:39:05 AM
Surr: DNOP	104	61.3-164		%REC	1	3/22/2012 10:39:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.0	1.0		mg/L	20	3/24/2012 3:15:58 PM
Surr: BFB	92.2	69.3-120		%REC	20	3/24/2012 3:15:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	3.6	0.50		mg/L	5	3/21/2012 6:52:32 PM
Chloride	1,200	50		mg/L	100	3/22/2012 4:40:20 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/21/2012 6:52:32 PM
Bromide	3.2	0.50		mg/L	5	3/21/2012 6:52:32 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	3/21/2012 6:52:32 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/21/2012 6:52:32 PM
Sulfate	130	2.5		mg/L	5	3/21/2012 6:52:32 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.97	0.0020		mg/L	1	4/2/2012 6:31:59 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2012 6:31:59 PM
Calcium	320	10		mg/L	10	4/2/2012 6:44:55 PM
Chromium	ND	0.0060		mg/L	1	4/2/2012 6:31:59 PM
Copper	ND	0.0060		mg/L	1	4/2/2012 6:31:59 PM
Iron	9.4	0.20	*	mg/L	10	4/2/2012 6:44:55 PM
Lead	0.0052	0.0050		mg/L	1	4/2/2012 6:31:59 PM
Magnesium	75	1.0		mg/L	1	4/2/2012 6:31:59 PM
Manganese	3.0	0.020	*	mg/L	10	4/2/2012 6:44:55 PM
Potassium	2.5	1.0		mg/L	1	4/2/2012 6:31:59 PM
Silver	ND	0.0050		mg/L	1	4/2/2012 6:31:59 PM
Sodium	1,100	100		mg/L	100	4/5/2012 8:26:04 AM
Zinc	0.067	0.010		mg/L	1	4/2/2012 6:31:59 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	1.1	0.020		mg/L	10	3/27/2012 4:15:23 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 3:39:29 PM
Chromium	ND	0.0060		mg/L	1	3/26/2012 3:39:29 PM
Copper	ND	0.0060		mg/L	1	3/26/2012 3:39:29 PM
Iron	8.9	0.20	*	mg/L	10	3/28/2012 2:44:45 PM
Lead	0.0058	0.0050		mg/L	1	3/26/2012 3:39:29 PM
Manganese	3.0	0.020	*	mg/L	10	3/27/2012 4:15:23 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 3:39:29 PM
Zinc	0.016	0.010		mg/L	1	3/26/2012 3:39:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 3:25:00 PM
Lab ID: 1203766-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.073	0.0020	*	mg/L	2	4/12/2012 6:28:22 PM
Selenium	0.0096	0.0020		mg/L	2	4/13/2012 2:33:25 PM
Uranium	0.0060	0.0020		mg/L	2	4/12/2012 6:28:22 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.073	0.0050	*	mg/L	5	4/17/2012 3:00:48 PM
Selenium	0.010	0.0025		mg/L	2.5	4/4/2012 5:17:45 PM
Uranium	0.0069	0.0025		mg/L	2.5	4/4/2012 5:17:45 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.0010		mg/L	5	3/23/2012 4:43:44 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	5.7	1.0		µg/L	1	3/26/2012 9:14:17 PM
Toluene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Ethylbenzene	1.9	1.0		µg/L	1	3/26/2012 9:14:17 PM
Methyl tert-butyl ether (MTBE)	54	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2,4-Trimethylbenzene	1.8	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Naphthalene	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/26/2012 9:14:17 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/26/2012 9:14:17 PM
Acetone	11	10		µg/L	1	3/26/2012 9:14:17 PM
Bromobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Bromoform	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Bromomethane	ND	3.0		µg/L	1	3/26/2012 9:14:17 PM
2-Butanone	ND	10		µg/L	1	3/26/2012 9:14:17 PM
Carbon disulfide	ND	10		µg/L	1	3/26/2012 9:14:17 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Chlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Chloroethane	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
Chloroform	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Chloromethane	ND	3.0		µg/L	1	3/26/2012 9:14:17 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Dibromomethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203766-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 3/20/2012 3:25:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
2-Hexanone	ND	10		µg/L	1	3/26/2012 9:14:17 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/26/2012 9:14:17 PM
Methylene Chloride	ND	3.0		µg/L	1	3/26/2012 9:14:17 PM
n-Butylbenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
n-Propylbenzene	1.1	1.0		µg/L	1	3/26/2012 9:14:17 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Styrene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/26/2012 9:14:17 PM
Vinyl chloride	ND	1.0		µg/L	1	3/26/2012 9:14:17 PM
Xylenes, Total	7.0	1.5		µg/L	1	3/26/2012 9:14:17 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	3/26/2012 9:14:17 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1	3/26/2012 9:14:17 PM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	3/26/2012 9:14:17 PM
Surr: Toluene-d8	99.3	70-130		%REC	1	3/26/2012 9:14:17 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203766-002 **Matrix:** AQUEOUS

Client Sample ID: GMW-2
Collection Date: 3/20/2012 4:10:00 PM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2.4	1.0		mg/L	1	3/22/2012 11:04:27 AM
Surr: DNOP	111	61.3-164		%REC	1	3/22/2012 11:04:27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/26/2012 2:02:37 AM
Surr: BFB	82.3	69.3-120		%REC	5	3/26/2012 2:02:37 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	3/24/2012 1:15:05 PM
Benzene	ND	5.0		µg/L	5	3/24/2012 1:15:05 PM
Toluene	ND	5.0		µg/L	5	3/24/2012 1:15:05 PM
Ethylbenzene	ND	5.0		µg/L	5	3/24/2012 1:15:05 PM
Xylenes, Total	ND	10		µg/L	5	3/24/2012 1:15:05 PM
Surr: 4-Bromofluorobenzene	69.8	55-140		%REC	5	3/24/2012 1:15:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	3.6	0.50		mg/L	5	3/21/2012 7:17:20 PM
Chloride	1,500	50		mg/L	100	3/22/2012 4:52:45 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/21/2012 7:17:20 PM
Bromide	4.4	0.50		mg/L	5	3/21/2012 7:17:20 PM
Nitrogen, Nitrate (As N)	38	0.50	*	mg/L	5	3/21/2012 7:17:20 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/21/2012 7:17:20 PM
Sulfate	1,300	50		mg/L	100	3/22/2012 4:52:45 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Calcium	530	10		mg/L	10	4/5/2012 8:28:46 AM
Magnesium	95	1.0		mg/L	1	4/2/2012 6:47:20 PM
Potassium	2.9	1.0		mg/L	1	4/2/2012 6:47:20 PM
Sodium	1,500	100		mg/L	100	4/5/2012 8:31:37 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GMW-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 4:25:00 PM
Lab ID: 1203766-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2.7	1.0		mg/L	1	3/22/2012 11:29:49 AM
Surr: DNOP	108	61.3-164		%REC	1	3/22/2012 11:29:49 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	3/24/2012 2:45:32 PM
Surr: BFB	97.1	69.3-120		%REC	5	3/24/2012 2:45:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	3/24/2012 2:45:32 PM
Benzene	ND	5.0		µg/L	5	3/24/2012 2:45:32 PM
Toluene	ND	5.0		µg/L	5	3/24/2012 2:45:32 PM
Ethylbenzene	ND	5.0		µg/L	5	3/24/2012 2:45:32 PM
Xylenes, Total	ND	10		µg/L	5	3/24/2012 2:45:32 PM
Surr: 4-Bromofluorobenzene	98.8	55-140		%REC	5	3/24/2012 2:45:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	4.9	0.50	*	mg/L	5	3/21/2012 7:42:10 PM
Chloride	1,300	50		mg/L	100	3/22/2012 5:05:10 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/21/2012 7:42:10 PM
Bromide	2.8	0.50		mg/L	5	3/21/2012 7:42:10 PM
Nitrogen, Nitrate (As N)	18	0.50	*	mg/L	5	3/21/2012 7:42:10 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	3/21/2012 7:42:10 PM
Sulfate	1,600	50		mg/L	100	3/22/2012 5:05:10 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Calcium	480	5.0		mg/L	5	4/2/2012 6:57:46 PM
Magnesium	87	1.0		mg/L	1	4/2/2012 6:55:16 PM
Potassium	3.7	1.0		mg/L	1	4/2/2012 6:55:16 PM
Sodium	1,400	100		mg/L	100	4/5/2012 8:34:19 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52370** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1868**	RunNo: **1868**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52371** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	48	1.0	50.00	0	96.3	85	115			
Chromium	0.51	0.0060	0.5000	0	103	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Magnesium	49	1.0	50.00	0	97.1	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Potassium	47	1.0	50.00	0	93.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53521** Units: **mg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53522** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	52	1.0	50.00	0	104	85	115			
Sodium	51	1.0	50.00	0	103	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53523** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1923**	RunNo: **1923**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **53524** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	53	1.0	50.00	0	105	85	115			
Sodium	52	1.0	50.00	0	104	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1230**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.51	0.0020	0.5000	0.0004200	101	85	115			
›mium	0.49	0.0060	0.5000	0.0006400	98.8	85	115			
,per	0.50	0.0060	0.5000	0.001800	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.024	0.0010	0.02500	0	95.9	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			
Uranium	0.026	0.0010	0.02500	0.001260	97.5	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59446** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID	**1203798-001DMS**	SampType: **MS**		TestCode: **EPA 200.8: Dissolved Metals**						
Client ID:	**BatchQC**	Batch ID: **R2139**		RunNo: **2139**						
Prep Date:		Analysis Date: **4/13/2012**		SeqNo: **59450**		Units: **mg/L**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium		0.028	0.0010	0.02500	0.005266	91.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1930**
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**	SeqNo: **53748** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1217**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1217**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1203766-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **GWM-1**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1203766-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **GWM-1**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46697** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.0010	0.005000	0	111	75	125	2.60	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45120** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45121** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.9	90	110			
Bromide	2.4	0.10	2.500	0	94.7	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.0	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.9	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID **LCSD** SampType: **LCSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS02** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110	2.06	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.5	90	110	0.669	20	
Bromide	2.4	0.10	2.500	0	95.3	90	110	0.658	20	
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.5	90	110	0.580	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.4	90	110	0.448	20	
Sulfate	9.7	0.50	10.00	0	97.4	90	110	0.462	20	

Sample ID **1203750-001FMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	25	5.0	25.00	1.873	94.2	72.9	113			
Bromide	150	5.0	125.0	31.23	94.3	76	114			
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	96.5	82.8	116			
Phosphorus, Orthophosphate (As P	230	25	250.0	0	92.7	79.3	108			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203750-001FMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	26	5.0	25.00	1.873	94.9	72.9	113	0.763	20	
Bromide	150	5.0	125.0	31.23	94.8	76	114	0.457	20	
Nitrogen, Nitrate (As N)	120	5.0	125.0	0	97.0	82.8	116	0.495	20	
Phosphorus, Orthophosphate (As P	230	25	250.0	0	93.3	79.3	108	0.696	20	

Sample ID **1203795-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	95.4	72.9	113			
Nitrogen, Nitrite (As N)	0.89	0.10	1.000	0	89.2	77.6	111			
Bromide	2.4	0.10	2.500	0	96.5	76	114			
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	101	82.8	116			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.7	79.3	108			

Sample ID **1203795-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1603** RunNo: **1603**

Prep Date: Analysis Date: **3/21/2012** SeqNo: **45134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.99	0.10	0.5000	0.5112	96.1	72.9	113	0.353	20	
Nitrogen, Nitrite (As N)	0.90	0.10	1.000	0	89.7	77.6	111	0.590	20	
Bromide	2.4	0.10	2.500	0	96.7	76	114	0.146	20	
Nitrogen, Nitrate (As N)	3.5	0.10	2.500	0.9770	102	82.8	116	0.457	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.6	79.3	108	0.913	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R1629** RunNo: **1629**

Prep Date: Analysis Date: **3/22/2012** SeqNo: **46248** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R1629** RunNo: **1629**

Prep Date: Analysis Date: **3/22/2012** SeqNo: **46249** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203799-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1629**	RunNo: **1629**
Prep Date:	Analysis Date: **3/22/2012**	SeqNo: **46261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	0.50	5.000	11.60	104	78	107			

Sample ID **1203799-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1629**	RunNo: **1629**
Prep Date:	Analysis Date: **3/22/2012**	SeqNo: **46262** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	17	0.50	5.000	11.60	101	78	107	0.778	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1190**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	61.3	164			

Sample ID **LCS-1190**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.9	74	157			
Surr: DNOP	0.50		0.5000		101	61.3	164			

Sample ID **LCSD-1190**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157	10.5	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1654**	RunNo: **1654**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **46786** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	18		20.00		88.5	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1654**	RunNo: **1654**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **46787** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		98.5	69.3	120			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1658**	RunNo: **1658**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46945** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1658**	RunNo: **1658**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46946** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.59	0.050	0.5000	0	119	101	123			
Surr: BFB	20		20.00		102	69.3	120			

Sample ID **1203766-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **GWM-1**	Batch ID: **R1658**	RunNo: **1658**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46955** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	12	1.0	10.00	1.048	107	75.4	121			
Surr: BFB	380		400.0		95.8	69.3	120			

Sample ID **1203766-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **GWM-1**	Batch ID: **R1658**	RunNo: **1658**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46956** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	12	1.0	10.00	1.048	110	75.4	121	2.02	10.5	
Surr: BFB	380		400.0		93.9	69.3	120	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1683**	RunNo: **1683**
Prep Date:	Analysis Date: **3/25/2012**	SeqNo: **47649** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.1	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1683**	RunNo: **1683**
Prep Date:	Analysis Date: **3/25/2012**	SeqNo: **47650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0	113	101	123			
Surr: BFB	19		20.00		96.0	69.3	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203766**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1655**	RunNo: **1655**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **46805** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	18		20.00		89.8	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1655**	RunNo: **1655**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **46806** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		110	55	140			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1659**	RunNo: **1659**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	19		20.00		94.7	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1659**	RunNo: **1659**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	21	2.5	20.00	0	104	50.5	158			
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	23	1.0	20.00	0	113	80	120			
Ethylbenzene	22	1.0	20.00	0	112	80	120			
Xylenes, Total	67	2.0	60.00	0	112	80	120			
Surr: 4-Bromofluorobenzene	24		20.00		118	55	140			

Sample ID **1203766-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **GMW-2**	Batch ID: **R1659**	RunNo: **1659**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46984** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	100	12	100.0	2.480	97.4	58	139			
Benzene	100	5.0	100.0	0	104	70.1	118			
Toluene	110	5.0	100.0	0	110	72.3	117			
Ethylbenzene	110	5.0	100.0	0	109	73.5	117			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203766-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **GMW-2**	Batch ID: **R1659**	RunNo: **1659**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46984** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	330	10	300.0	0	110	73.1	119			
Surr: 4-Bromofluorobenzene	110		100.0		115	55	140			

Sample ID **1203766-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **GMW-2**	Batch ID: **R1659**	RunNo: **1659**
Prep Date:	Analysis Date: **3/24/2012**	SeqNo: **46985** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	100	12	100.0	2.480	101	58	139	3.52	15.2	
Benzene	100	5.0	100.0	0	104	70.1	118	0.741	16.4	
Toluene	110	5.0	100.0	0	107	72.3	117	3.09	13.9	
Ethylbenzene	110	5.0	100.0	0	106	73.5	117	2.92	13.5	
Xylenes, Total	320	10	300.0	0	106	73.1	119	3.02	12.9	
Surr: 4-Bromofluorobenzene	110		100.0		112	55	140	0	0	

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203766**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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- E Value above quantitation range
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- R RPD outside accepted recovery limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203766**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48299** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1-Trichloroethane	ND	1.0								
,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		114	69.8	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1715**	RunNo: **1715**
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48300** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.3	84.1	126			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	96.1	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203766**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **LCSW**	Batch ID: **R1715**	RunNo: **1715**	
Prep Date:	Analysis Date: **3/26/2012**	SeqNo: **48300**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		108	69.8	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203766

Received by/date: 03/21/12

Logged By: **Ashley Gallegos** 3/21/2012 12:47:00 PM

Completed By: **Ashley Gallegos** 3/21/2012 1:06:27 PM

Reviewed By: AT 03/22/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☑	~~No ☑~~	NA ☐
11. VOA vials have zero headspace? (OBS, COLE-ADDED 1mL HNO_3 FOR ACCEPTABLE pH - JK 03/22/12)	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 17
(<2 or >12 unless noted)
Adjusted? Yes
Checked by: JK

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Client: West Refining

Mailing Address: Rt 3 Box 7, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: T. Fleener / S. Ukele

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1203764	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)												Air Bubbles (Y or N)
3-20-12	1525	W	GWM-1	Various	Various	-001	X		X	X	X									
	1610		GWM-2			-002		X	X		X									
	1625		GWM-3			-003		X	X		X									

Date:	Time:	Relinquished by:	Received by:	Date	Time
3/21/12	0830			3-21-12	08:30
Date:	Time:	Relinquished by:	Received by:	Date	Time
3/21/12				03/21/12	12:47

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 18, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203800

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/21/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203800**
Date Reported: **4/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:45:00 AM
Lab ID: 1203800-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2012 2:52:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 2:52:03 PM
Surr: DNOP	114	61.3-164		%REC	1	3/22/2012 2:52:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/26/2012 2:32:42 AM
Surr: BFB	104	69.3-120		%REC	1	3/26/2012 2:32:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/24/2012 2:18:57 AM
Benzene	ND	1.0		µg/L	1	3/24/2012 2:18:57 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 2:18:57 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 2:18:57 AM
Xylenes, Total	ND	2.0		µg/L	1	3/24/2012 2:18:57 AM
Surr: 4-Bromofluorobenzene	66.9	55-140		%REC	1	3/24/2012 2:18:57 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.49	0.10		mg/L	1	3/22/2012 12:41:33 PM
Chloride	100	10		mg/L	20	3/22/2012 9:50:47 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/22/2012 9:38:22 AM
Bromide	1.6	0.10		mg/L	1	3/22/2012 9:38:22 AM
Nitrogen, Nitrate (As N)	3.3	0.10		mg/L	1	3/22/2012 9:38:22 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	3/22/2012 12:41:33 PM
Sulfate	56	10		mg/L	20	3/22/2012 9:50:47 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.11	0.0020		mg/L	1	4/3/2012 5:43:20 PM
Cadmium	ND	0.0020		mg/L	1	4/3/2012 5:43:20 PM
Calcium	80	1.0		mg/L	1	4/6/2012 7:23:46 AM
Chromium	ND	0.0060		mg/L	1	4/3/2012 5:43:20 PM
Copper	ND	0.0060		mg/L	1	4/3/2012 5:43:20 PM
Iron	ND	0.020		mg/L	1	4/3/2012 5:43:20 PM
Lead	ND	0.0050		mg/L	1	4/3/2012 5:43:20 PM
Magnesium	15	1.0		mg/L	1	4/6/2012 7:23:46 AM
Manganese	0.0061	0.0020		mg/L	1	4/3/2012 5:43:20 PM
Potassium	ND	1.0		mg/L	1	4/6/2012 7:23:46 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:23:46 AM
Sodium	350	5.0		mg/L	5	4/6/2012 7:26:48 AM
Zinc	0.022	0.010		mg/L	1	4/3/2012 5:43:20 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.13	0.0020		mg/L	1	3/26/2012 4:03:58 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:03:58 PM
Chromium	ND	0.0060		mg/L	1	3/26/2012 4:03:58 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:45:00 AM
Lab ID: 1203800-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Copper	ND	0.0060		mg/L	1	3/26/2012 4:03:58 PM
Iron	0.99	0.020	*	mg/L	1	3/26/2012 4:03:58 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:03:58 PM
Manganese	0.039	0.0020		mg/L	1	3/26/2012 4:03:58 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:03:58 PM
Zinc	ND	0.010		mg/L	1	3/26/2012 4:03:58 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0018	0.0010		mg/L	1	4/12/2012 6:41:29 PM
Selenium	0.0060	0.0010		mg/L	1	4/13/2012 2:46:33 PM
Uranium	0.010	0.0010		mg/L	1	4/12/2012 6:41:29 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	4/4/2012 4:38:21 PM
Selenium	0.0053	0.0025		mg/L	2.5	4/4/2012 4:38:21 PM
Uranium	0.012	0.0025		mg/L	2.5	4/4/2012 4:38:21 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:02:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Acenaphthylene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Aniline	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Anthracene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Azobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benz(a)anthracene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Benzoic acid	ND	20		µg/L	1	3/23/2012 2:30:02 PM
Benzyl alcohol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Carbazole	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4-Chloroaniline	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Chlorophenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:45:00 AM
Lab ID: 1203800-001 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Chrysene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Dibenzofuran	ND	10		µg/L	1	3/23/2012 2:30:02 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Diethyl phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Dimethyl phthalate	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/23/2012 2:30:02 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/23/2012 2:30:02 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/23/2012 2:30:02 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Fluoranthene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Fluorene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Hexachlorobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Hexachloroethane	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Isophorone	ND	10		µg/L	1	3/23/2012 2:30:02 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Methylphenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
3+4-Methylphenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/23/2012 2:30:02 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/23/2012 2:30:02 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Naphthalene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Nitroaniline	ND	10		µg/L	1	3/23/2012 2:30:02 PM
3-Nitroaniline	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4-Nitroaniline	ND	20		µg/L	1	3/23/2012 2:30:02 PM
Nitrobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2-Nitrophenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
4-Nitrophenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Pentachlorophenol	ND	20		µg/L	1	3/23/2012 2:30:02 PM
Phenanthrene	ND	10		µg/L	1	3/23/2012 2:30:02 PM

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- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203800-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 3/20/2012 9:45:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Phenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Pyrene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Pyridine	ND	10		µg/L	1	3/23/2012 2:30:02 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/23/2012 2:30:02 PM
Surr: 2,4,6-Tribromophenol	103	18.1-138		%REC	1	3/23/2012 2:30:02 PM
Surr: 2-Fluorobiphenyl	93.5	25.9-101		%REC	1	3/23/2012 2:30:02 PM
Surr: 2-Fluorophenol	73.9	12.5-93.2		%REC	1	3/23/2012 2:30:02 PM
Surr: 4-Terphenyl-d14	89.5	29.5-112		%REC	1	3/23/2012 2:30:02 PM
Surr: Nitrobenzene-d5	88.6	20.5-120		%REC	1	3/23/2012 2:30:02 PM
Surr: Phenol-d5	51.9	11.5-73.2		%REC	1	3/23/2012 2:30:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:15:00 AM
Lab ID: 1203800-002
Matrix: AQUEOUS
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	4.7	1.0		mg/L	1	3/22/2012 3:17:26 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 3:17:26 PM
Surr: DNOP	111	61.3-164		%REC	1	3/22/2012 3:17:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.4	0.50		mg/L	10	3/24/2012 2:49:00 AM
Surr: BFB	101	69.3-120		%REC	10	3/24/2012 2:49:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	370	25		µg/L	10	3/24/2012 2:49:00 AM
Benzene	19	10		µg/L	10	3/24/2012 2:49:00 AM
Toluene	ND	10		µg/L	10	3/24/2012 2:49:00 AM
Ethylbenzene	11	10		µg/L	10	3/24/2012 2:49:00 AM
Xylenes, Total	ND	20		µg/L	10	3/24/2012 2:49:00 AM
Surr: 4-Bromofluorobenzene	100	55-140		%REC	10	3/24/2012 2:49:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.49	0.10		mg/L	1	3/22/2012 12:29:08 PM
Chloride	330	10		mg/L	20	3/22/2012 10:15:36 AM
Bromide	0.94	0.10		mg/L	1	3/22/2012 10:03:11 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	3/22/2012 12:29:08 PM
Sulfate	5.3	0.50		mg/L	1	3/22/2012 10:03:11 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/22/2012 7:34:06 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	1.8	0.010		mg/L	5	4/6/2012 7:32:00 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 7:29:40 AM
Calcium	94	1.0		mg/L	1	4/6/2012 7:29:40 AM
Chromium	ND	0.0060		mg/L	1	4/6/2012 7:29:40 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 7:29:40 AM
Iron	3.0	0.10	*	mg/L	5	4/6/2012 7:32:00 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 7:29:40 AM
Magnesium	18	1.0		mg/L	1	4/6/2012 7:29:40 AM
Manganese	1.5	0.010	*	mg/L	5	4/6/2012 7:32:00 AM
Potassium	ND	1.0		mg/L	1	4/6/2012 7:29:40 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:29:40 AM
Sodium	350	5.0		mg/L	5	4/6/2012 7:32:00 AM
Zinc	0.070	0.010		mg/L	1	4/6/2012 7:29:40 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	2.1	0.020	*	mg/L	10	3/27/2012 4:43:20 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:15:24 PM
Chromium	ND	0.0060		mg/L	1	3/27/2012 4:40:49 PM
Copper	0.0071	0.0060		mg/L	1	3/26/2012 4:15:24 PM

Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:15:00 AM
Lab ID: 1203800-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Iron	5.0	0.20	*	mg/L	10	3/28/2012 2:58:05 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:15:24 PM
Manganese	1.6	0.020	*	mg/L	10	3/27/2012 4:43:20 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:15:24 PM
Zinc	0.015	0.010		mg/L	1	3/27/2012 4:40:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0093	0.0010		mg/L	1	4/12/2012 6:52:31 PM
Selenium	0.0042	0.0010		mg/L	1	4/13/2012 2:55:57 PM
Uranium	ND	0.0010		mg/L	1	4/16/2012 3:24:14 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.011	0.0025	*	mg/L	2.5	4/4/2012 4:50:13 PM
Selenium	0.0036	0.0025		mg/L	2.5	4/4/2012 4:50:13 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 4:50:13 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:04:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Acenaphthylene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Aniline	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Anthracene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Azobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benz(a)anthracene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Benzoic acid	ND	20		µg/L	1	3/23/2012 2:59:48 PM
Benzyl alcohol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Carbazole	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Chloroaniline	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2-Chlorophenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 2:59:48 PM

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- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203800-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-2
Collection Date: 3/20/2012 9:15:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Chrysene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Dibenzofuran	ND	10		µg/L	1	3/23/2012 2:59:48 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Diethyl phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Dimethyl phthalate	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/23/2012 2:59:48 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/23/2012 2:59:48 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/23/2012 2:59:48 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Fluoranthene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Fluorene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Hexachlorobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Hexachloroethane	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Isophorone	ND	10		µg/L	1	3/23/2012 2:59:48 PM
1-Methylnaphthalene	15	10		µg/L	1	3/23/2012 2:59:48 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2-Methylphenol	15	10		µg/L	1	3/23/2012 2:59:48 PM
3+4-Methylphenol	34	10		µg/L	1	3/23/2012 2:59:48 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/23/2012 2:59:48 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/23/2012 2:59:48 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Naphthalene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2-Nitroaniline	ND	10		µg/L	1	3/23/2012 2:59:48 PM
3-Nitroaniline	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Nitroaniline	ND	20		µg/L	1	3/23/2012 2:59:48 PM
Nitrobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2-Nitrophenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
4-Nitrophenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Pentachlorophenol	ND	20		µg/L	1	3/23/2012 2:59:48 PM
Phenanthrene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Phenol	78	10		µg/L	1	3/23/2012 2:59:48 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 9:15:00 AM
Lab ID: 1203800-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pyrene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Pyridine	ND	10		µg/L	1	3/23/2012 2:59:48 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/23/2012 2:59:48 PM
Surr: 2,4,6-Tribromophenol	85.5	18.1-138		%REC	1	3/23/2012 2:59:48 PM
Surr: 2-Fluorobiphenyl	76.8	25.9-101		%REC	1	3/23/2012 2:59:48 PM
Surr: 2-Fluorophenol	60.7	12.5-93.2		%REC	1	3/23/2012 2:59:48 PM
Surr: 4-Terphenyl-d14	79.7	29.5-112		%REC	1	3/23/2012 2:59:48 PM
Surr: Nitrobenzene-d5	75.5	20.5-120		%REC	1	3/23/2012 2:59:48 PM
Surr: Phenol-d5	44.1	11.5-73.2		%REC	1	3/23/2012 2:59:48 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 11:50:00 AM
Lab ID: 1203800-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/22/2012 3:42:51 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 3:42:51 PM
Surr: DNOP	112	61.3-164		%REC	1	3/22/2012 3:42:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/24/2012 5:47:00 PM
Surr: BFB	87.8	69.3-120		%REC	1	3/24/2012 5:47:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/24/2012 4:19:28 AM
Benzene	ND	1.0		µg/L	1	3/24/2012 4:19:28 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 4:19:28 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:19:28 AM
Xylenes, Total	ND	2.0		µg/L	1	3/24/2012 4:19:28 AM
Surr: 4-Bromofluorobenzene	68.8	55-140		%REC	1	3/24/2012 4:19:28 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.59	0.50		mg/L	5	3/22/2012 12:53:57 PM
Chloride	970	50		mg/L	100	3/23/2012 6:52:55 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/22/2012 10:28:00 AM
Bromide	4.4	0.50		mg/L	5	3/22/2012 10:28:00 AM
Nitrogen, Nitrate (As N)	19	0.50	*	mg/L	5	3/22/2012 10:28:00 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/22/2012 12:53:57 PM
Sulfate	390	25		mg/L	50	3/22/2012 10:40:24 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.063	0.0020		mg/L	1	4/6/2012 7:46:55 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 7:46:55 AM
Calcium	40	1.0		mg/L	1	4/6/2012 7:46:55 AM
Chromium	0.0079	0.0060		mg/L	1	4/6/2012 7:46:55 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 7:46:55 AM
Iron	0.51	0.020	*	mg/L	1	4/6/2012 7:46:55 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 7:46:55 AM
Magnesium	6.4	1.0		mg/L	1	4/6/2012 7:46:55 AM
Manganese	0.014	0.0020		mg/L	1	4/6/2012 7:46:55 AM
Potassium	3.9	1.0		mg/L	1	4/6/2012 7:46:55 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:46:55 AM
Sodium	920	10		mg/L	10	4/6/2012 7:49:57 AM
Zinc	0.084	0.010		mg/L	1	4/6/2012 7:46:55 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.16	0.0020		mg/L	1	3/26/2012 4:17:56 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:17:56 PM
Chromium	0.017	0.0060		mg/L	1	3/27/2012 4:46:23 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 11:50:00 AM
Lab ID: 1203800-003 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Copper	0.0083	0.0060		mg/L	1	3/26/2012 4:17:56 PM
Iron	5.5	0.20	*	mg/L	10	3/28/2012 3:01:11 PM
Lead	0.0082	0.0050		mg/L	1	3/26/2012 4:17:56 PM
Manganese	0.12	0.0020	*	mg/L	1	3/26/2012 4:17:56 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:17:56 PM
Zinc	0.22	0.010		mg/L	1	3/27/2012 4:46:23 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0039	0.0010		mg/L	1	4/12/2012 6:54:23 PM
Selenium	0.017	0.0010		mg/L	1	4/13/2012 2:57:49 PM
Uranium	0.032	0.0050	*	mg/L	5	4/16/2012 3:26:06 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0060	0.0025		mg/L	2.5	4/4/2012 4:54:09 PM
Selenium	0.017	0.0025		mg/L	2.5	4/4/2012 4:54:09 PM
Uranium	0.038	0.0025	*	mg/L	2.5	4/4/2012 4:54:09 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:09:49 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Acenaphthylene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Aniline	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Anthracene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Azobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benz(a)anthracene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Benzoic acid	ND	20		µg/L	1	3/23/2012 3:29:39 PM
Benzyl alcohol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Carbazole	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4-Chloroaniline	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Chlorophenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203800-003 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 3/20/2012 11:50:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Chrysene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Dibenzofuran	ND	10		µg/L	1	3/23/2012 3:29:39 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Diethyl phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Dimethyl phthalate	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/23/2012 3:29:39 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/23/2012 3:29:39 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/23/2012 3:29:39 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Fluoranthene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Fluorene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Hexachlorobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Hexachloroethane	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Isophorone	ND	10		µg/L	1	3/23/2012 3:29:39 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Methylphenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
3+4-Methylphenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/23/2012 3:29:39 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/23/2012 3:29:39 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Naphthalene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Nitroaniline	ND	10		µg/L	1	3/23/2012 3:29:39 PM
3-Nitroaniline	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4-Nitroaniline	ND	20		µg/L	1	3/23/2012 3:29:39 PM
Nitrobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2-Nitrophenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
4-Nitrophenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Pentachlorophenol	ND	20		µg/L	1	3/23/2012 3:29:39 PM
Phenanthrene	ND	10		µg/L	1	3/23/2012 3:29:39 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203800-003 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 3/20/2012 11:50:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Phenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Pyrene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Pyridine	ND	10		µg/L	1	3/23/2012 3:29:39 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/23/2012 3:29:39 PM
Surr: 2,4,6-Tribromophenol	97.3	18.1-138		%REC	1	3/23/2012 3:29:39 PM
Surr: 2-Fluorobiphenyl	89.3	25.9-101		%REC	1	3/23/2012 3:29:39 PM
Surr: 2-Fluorophenol	66.2	12.5-93.2		%REC	1	3/23/2012 3:29:39 PM
Surr: 4-Terphenyl-d14	83.6	29.5-112		%REC	1	3/23/2012 3:29:39 PM
Surr: Nitrobenzene-d5	84.0	20.5-120		%REC	1	3/23/2012 3:29:39 PM
Surr: Phenol-d5	49.9	11.5-73.2		%REC	1	3/23/2012 3:29:39 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 11:25:00 AM
Lab ID: 1203800-004 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.8	1.0		mg/L	1	3/22/2012 4:08:13 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 4:08:13 PM
Surr: DNOP	113	61.3-164		%REC	1	3/22/2012 4:08:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.16	0.10		mg/L	2	3/24/2012 6:17:01 PM
Surr: BFB	94.8	69.3-120		%REC	2	3/24/2012 6:17:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	35	5.0		µg/L	2	3/24/2012 6:17:01 PM
Benzene	15	2.0		µg/L	2	3/24/2012 6:17:01 PM
Toluene	ND	2.0		µg/L	2	3/24/2012 6:17:01 PM
Ethylbenzene	4.2	2.0		µg/L	2	3/24/2012 6:17:01 PM
Xylenes, Total	ND	4.0		µg/L	2	3/24/2012 6:17:01 PM
Surr: 4-Bromofluorobenzene	97.2	55-140		%REC	2	3/24/2012 6:17:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	2.0	0.50		mg/L	5	3/22/2012 1:06:21 PM
Chloride	440	25		mg/L	50	3/22/2012 11:05:14 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	3/22/2012 10:52:50 AM
Bromide	1.9	0.50		mg/L	5	3/22/2012 10:52:50 AM
Nitrogen, Nitrate (As N)	15	0.50	*	mg/L	5	3/22/2012 10:52:50 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/22/2012 1:06:21 PM
Sulfate	220	2.5		mg/L	5	3/22/2012 10:52:50 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.068	0.0020		mg/L	1	4/6/2012 7:52:51 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 7:52:51 AM
Calcium	93	1.0		mg/L	1	4/6/2012 7:52:51 AM
Chromium	0.011	0.0060		mg/L	1	4/6/2012 7:52:51 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 7:52:51 AM
Iron	0.35	0.020	*	mg/L	1	4/6/2012 7:52:51 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 7:52:51 AM
Magnesium	16	1.0		mg/L	1	4/6/2012 7:52:51 AM
Manganese	0.35	0.0020	*	mg/L	1	4/6/2012 7:52:51 AM
Potassium	2.8	1.0		mg/L	1	4/6/2012 7:52:51 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:52:51 AM
Sodium	550	10		mg/L	10	4/6/2012 7:55:54 AM
Zinc	0.033	0.010		mg/L	1	4/6/2012 7:52:51 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.99	0.0020		mg/L	1	3/26/2012 4:20:44 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:20:44 PM
Chromium	0.033	0.0060		mg/L	1	3/27/2012 4:52:15 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 11:25:00 AM
Lab ID: 1203800-004 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Copper	0.017	0.0060		mg/L	1	3/26/2012 4:20:44 PM
Iron	24	1.0	*	mg/L	50	3/28/2012 3:03:41 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:20:44 PM
Manganese	1.8	0.010	*	mg/L	5	3/27/2012 4:56:51 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:20:44 PM
Zinc	0.095	0.010		mg/L	1	3/27/2012 4:52:15 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0033	0.0010		mg/L	1	4/12/2012 6:58:09 PM
Selenium	0.0085	0.0010		mg/L	1	4/13/2012 3:01:34 PM
Uranium	0.018	0.0010		mg/L	1	4/16/2012 4:18:58 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0065	0.0025		mg/L	2.5	4/4/2012 4:58:05 PM
Selenium	0.0088	0.0025		mg/L	2.5	4/4/2012 4:58:05 PM
Uranium	0.023	0.0025		mg/L	2.5	4/4/2012 4:58:05 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:11:34 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Acenaphthylene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Aniline	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Anthracene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Azobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benz(a)anthracene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benzo(a)pyrene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Benzoic acid	ND	20		µg/L	1	3/23/2012 3:59:32 PM
Benzyl alcohol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Butyl benzyl phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Carbazole	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4-Chloroaniline	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Chloronaphthalene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Chlorophenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM

Qualifiers:
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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 11:25:00 AM
Lab ID: 1203800-004 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Chrysene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Di-n-butyl phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Di-n-octyl phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Dibenzofuran	ND	10		µg/L	1	3/23/2012 3:59:32 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Diethyl phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Dimethyl phthalate	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2,4-Dichlorophenol	ND	20		µg/L	1	3/23/2012 3:59:32 PM
2,4-Dimethylphenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	3/23/2012 3:59:32 PM
2,4-Dinitrophenol	ND	20		µg/L	1	3/23/2012 3:59:32 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Fluoranthene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Fluorene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Hexachlorobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Hexachlorobutadiene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Hexachloroethane	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Isophorone	ND	10		µg/L	1	3/23/2012 3:59:32 PM
1-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Methylnaphthalene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Methylphenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
3+4-Methylphenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	3/23/2012 3:59:32 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	3/23/2012 3:59:32 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Naphthalene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Nitroaniline	ND	10		µg/L	1	3/23/2012 3:59:32 PM
3-Nitroaniline	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4-Nitroaniline	ND	20		µg/L	1	3/23/2012 3:59:32 PM
Nitrobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2-Nitrophenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
4-Nitrophenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Pentachlorophenol	ND	20		µg/L	1	3/23/2012 3:59:32 PM
Phenanthrene	ND	10		µg/L	1	3/23/2012 3:59:32 PM

Qualifiers:
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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203800-004 **Matrix:** AQUEOUS

Client Sample ID: KA-3
Collection Date: 3/20/2012 11:25:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Phenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Pyrene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Pyridine	ND	10		µg/L	1	3/23/2012 3:59:32 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	3/23/2012 3:59:32 PM
Surr: 2,4,6-Tribromophenol	109	18.1-138		%REC	1	3/23/2012 3:59:32 PM
Surr: 2-Fluorobiphenyl	98.3	25.9-101		%REC	1	3/23/2012 3:59:32 PM
Surr: 2-Fluorophenol	75.7	12.5-93.2		%REC	1	3/23/2012 3:59:32 PM
Surr: 4-Terphenyl-d14	97.8	29.5-112		%REC	1	3/23/2012 3:59:32 PM
Surr: Nitrobenzene-d5	101	20.5-120		%REC	1	3/23/2012 3:59:32 PM
Surr: Phenol-d5	51.3	11.5-73.2		%REC	1	3/23/2012 3:59:32 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

WO#: **1203800**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52722** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1888**	RunNo: **1888**
Prep Date:	Analysis Date: **4/3/2012**	SeqNo: **52723** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.8	85	115			
Chromium	0.49	0.0060	0.5000	0	97.7	85	115			
Copper	0.49	0.0060	0.5000	0	97.7	85	115			
Iron	0.48	0.020	0.5000	0	95.8	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.47	0.0020	0.5000	0	94.9	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Calcium	53	1.0	50.00	0	106	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.49	0.0050	0.5000	0	98.0	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	52	1.0	50.00	0	104	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **1203801-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55290** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.88	0.0020	0.5000	0.4210	92.5	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.2	70	130			
Chromium	0.60	0.0060	0.5000	0.1110	97.1	70	130			
Copper	0.51	0.0060	0.5000	0	102	70	130			
Lead	0.47	0.0050	0.5000	0	94.7	70	130			
Silver	0.072	0.0050	0.1000	0	71.5	70	130			
Zinc	0.54	0.010	0.5000	0.03485	100	70	130			

Sample ID **1203801-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55291** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.87	0.0020	0.5000	0.4210	90.6	70	130	1.07	20	
Cadmium	0.48	0.0020	0.5000	0	96.5	70	130	1.71	20	
Chromium	0.59	0.0060	0.5000	0.1110	95.6	70	130	1.27	20	
Copper	0.50	0.0060	0.5000	0	100	70	130	1.80	20	
Lead	0.47	0.0050	0.5000	0	93.2	70	130	1.62	20	
Silver	0.053	0.0050	0.1000	0	52.7	70	130	30.4	20	SR
Zinc	0.53	0.010	0.5000	0.03485	99.1	70	130	0.925	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203801-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.3	0.10	2.500	0.9020	97.1	70	130			
Manganese	2.9	0.010	2.500	0.5988	92.6	70	130			

Sample ID **1203801-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.3	0.10	2.500	0.9020	94.8	70	130	1.72	20	
Manganese	2.9	0.010	2.500	0.5988	93.0	70	130	0.276	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1230**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.51	0.0020	0.5000	0.0004200	101	85	115			
Chromium	0.49	0.0060	0.5000	0.0006400	98.8	85	115			
Copper	0.50	0.0060	0.5000	0.001800	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			
Uranium	0.024	0.0010	0.02500	0	95.9	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			
Uranium	0.026	0.0010	0.02500	0.001260	97.5	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59446** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59450** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0.005266	91.2	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2166**	RunNo: **2166**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60402** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2166**	RunNo: **2166**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60403** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.023	0.0010	0.02500	0	92.2	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60429** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.024	0.0010	0.02500	0	96.5	85	115			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60436** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.032	0.0010	0.02500	0.007582	97.1	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203800**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**	
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1930**	
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**	SeqNo: **53748**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203800**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1217**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1217**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1203766-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1203766-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46697** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.0010	0.005000	0	111	75	125	2.60	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 18, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203801

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 3/21/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203801**
Date Reported: **4/18/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 10:30:00 AM
Lab ID: 1203801-001
Matrix: AQUEOUS
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	30	1.0		mg/L	1	3/22/2012 4:33:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 4:33:32 PM
Surr: DNOP	115	61.3-164		%REC	1	3/22/2012 4:33:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	31	10		mg/L	200	3/28/2012 6:14:40 PM
Surr: BFB	93.4	69.3-120		%REC	200	3/28/2012 6:14:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	3/28/2012 6:14:40 PM
Benzene	1,400	200		µg/L	200	3/28/2012 6:14:40 PM
Toluene	3,100	200		µg/L	200	3/28/2012 6:14:40 PM
Ethylbenzene	560	200		µg/L	200	3/28/2012 6:14:40 PM
Xylenes, Total	8,000	400		µg/L	200	3/28/2012 6:14:40 PM
Surr: 4-Bromofluorobenzene	100	55-140		%REC	200	3/28/2012 6:14:40 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.42	0.0020		mg/L	1	4/6/2012 7:58:55 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 7:58:55 AM
Chromium	0.11	0.0060	*	mg/L	1	4/6/2012 7:58:55 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 7:58:55 AM
Iron	0.90	0.10	*	mg/L	5	4/6/2012 8:05:54 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 7:58:55 AM
Manganese	0.60	0.010	*	mg/L	5	4/6/2012 8:05:54 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 7:58:55 AM
Zinc	0.035	0.010		mg/L	1	4/6/2012 7:58:55 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.44	0.0020		mg/L	1	3/29/2012 3:04:56 PM
Cadmium	ND	0.0020		mg/L	1	3/29/2012 3:04:56 PM
Chromium	0.11	0.0060	*	mg/L	1	3/29/2012 3:04:56 PM
Copper	ND	0.0060		mg/L	1	3/29/2012 3:04:56 PM
Iron	2.3	0.10	*	mg/L	5	3/29/2012 3:09:23 PM
Lead	ND	0.0050		mg/L	1	3/29/2012 3:04:56 PM
Manganese	0.58	0.0020	*	mg/L	1	3/29/2012 3:04:56 PM
Silver	ND	0.0050		mg/L	1	3/29/2012 3:04:56 PM
Zinc	0.064	0.010		mg/L	1	3/29/2012 3:04:56 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0050		mg/L	5	4/12/2012 7:01:53 PM
Selenium	ND	0.0050		mg/L	5	4/13/2012 3:05:19 PM
Uranium	ND	0.0050		mg/L	5	4/16/2012 4:20:52 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0032	0.0025		mg/L	2.5	4/4/2012 12:32:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203801-001 **Matrix:** AQUEOUS

Client Sample ID: East LDU
Collection Date: 3/20/2012 10:30:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Selenium	0.0026	0.0025		mg/L	2.5	4/4/2012 12:32:36 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 12:32:36 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:13:20 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 10:40:00 AM
Lab ID: 1203801-002 **Matrix:** AQUEOUS **Received Date:** 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	6.9	1.0		mg/L	1	3/22/2012 4:58:55 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 4:58:55 PM
Surr: DNOP	113	61.3-164		%REC	1	3/22/2012 4:58:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	42	2.5		mg/L	50	3/28/2012 6:44:55 PM
Surr: BFB	99.7	69.3-120		%REC	50	3/28/2012 6:44:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	3/28/2012 6:44:55 PM
Benzene	1,600	50		µg/L	50	3/28/2012 6:44:55 PM
Toluene	6,000	100		µg/L	100	3/29/2012 6:54:14 PM
Ethylbenzene	690	50		µg/L	50	3/28/2012 6:44:55 PM
Xylenes, Total	7,600	100		µg/L	50	3/28/2012 6:44:55 PM
Surr: 4-Bromofluorobenzene	112	55-140		%REC	50	3/28/2012 6:44:55 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.21	0.0020		mg/L	1	4/6/2012 8:24:22 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 8:24:22 AM
Chromium	0.013	0.0060		mg/L	1	4/6/2012 8:24:22 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 8:24:22 AM
Iron	0.61	0.020	*	mg/L	1	4/6/2012 8:24:22 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 8:24:22 AM
Manganese	0.22	0.0020	*	mg/L	1	4/6/2012 8:24:22 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 8:24:22 AM
Zinc	0.020	0.010		mg/L	1	4/6/2012 8:24:22 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.21	0.0020		mg/L	1	3/29/2012 3:12:27 PM
Cadmium	ND	0.0020		mg/L	1	3/29/2012 3:12:27 PM
Chromium	0.011	0.0060		mg/L	1	3/29/2012 3:12:27 PM
Copper	ND	0.0060		mg/L	1	3/29/2012 3:12:27 PM
Iron	1.3	0.10	*	mg/L	5	3/29/2012 3:15:08 PM
Lead	ND	0.0050		mg/L	1	3/29/2012 3:12:27 PM
Manganese	0.22	0.0020	*	mg/L	1	3/29/2012 3:12:27 PM
Silver	ND	0.0050		mg/L	1	3/29/2012 3:12:27 PM
Zinc	0.014	0.010		mg/L	1	3/29/2012 3:12:27 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0018	0.0010		mg/L	1	4/12/2012 7:03:45 PM
Selenium	0.0038	0.0010		mg/L	1	4/13/2012 3:07:11 PM
Uranium	ND	0.0010		mg/L	1	4/16/2012 4:22:44 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0028	0.0025		mg/L	2.5	4/4/2012 12:36:32 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 10:40:00 AM
Lab ID: 1203801-002
Matrix: AQUEOUS
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Selenium	0.0035	0.0025		mg/L	2.5	4/4/2012 12:36:32 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 12:36:32 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/23/2012 4:15:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Oil Sump LDU
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/20/2012 10:10:00 AM
Lab ID: 1203801-003
Matrix: AQUEOUS
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	42	1.0		mg/L	1	3/22/2012 5:24:15 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/22/2012 5:24:15 PM
Surr: DNOP	116	61.3-164		%REC	1	3/22/2012 5:24:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	45	10		mg/L	200	3/28/2012 11:16:26 PM
Surr: BFB	96.8	69.3-120		%REC	200	3/28/2012 11:16:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	3/28/2012 11:16:26 PM
Benzene	2,000	200		µg/L	200	3/28/2012 11:16:26 PM
Toluene	8,100	200		µg/L	200	3/28/2012 11:16:26 PM
Ethylbenzene	890	200		µg/L	200	3/28/2012 11:16:26 PM
Xylenes, Total	6,900	400		µg/L	200	3/28/2012 11:16:26 PM
Surr: 4-Bromofluorobenzene	105	55-140		%REC	200	3/28/2012 11:16:26 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.23	0.0020		mg/L	1	4/6/2012 8:30:11 AM
Cadmium	ND	0.0020		mg/L	1	4/6/2012 8:30:11 AM
Chromium	0.047	0.0060		mg/L	1	4/6/2012 8:30:11 AM
Copper	ND	0.0060		mg/L	1	4/6/2012 8:30:11 AM
Iron	0.33	0.020	*	mg/L	1	4/6/2012 8:30:11 AM
Lead	ND	0.0050		mg/L	1	4/6/2012 8:30:11 AM
Manganese	0.79	0.0020	*	mg/L	1	4/6/2012 8:30:11 AM
Silver	ND	0.0050		mg/L	1	4/6/2012 8:30:11 AM
Zinc	0.024	0.010		mg/L	1	4/6/2012 8:30:11 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.52	0.0020		mg/L	1	3/29/2012 3:18:10 PM
Cadmium	ND	0.0020		mg/L	1	3/29/2012 3:18:10 PM
Chromium	0.048	0.0060		mg/L	1	3/29/2012 3:18:10 PM
Copper	0.0093	0.0060		mg/L	1	3/29/2012 3:18:10 PM
Iron	4.5	0.10	*	mg/L	5	3/29/2012 3:29:57 PM
Lead	0.0065	0.0050		mg/L	1	3/29/2012 3:18:10 PM
Manganese	0.82	0.0020	*	mg/L	1	3/29/2012 3:18:10 PM
Silver	ND	0.0050		mg/L	1	3/29/2012 3:18:10 PM
Zinc	0.22	0.010		mg/L	1	3/29/2012 3:18:10 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0070	0.0050		mg/L	5	4/12/2012 7:14:34 PM
Selenium	0.020	0.0050		mg/L	5	4/16/2012 4:24:36 PM
Uranium	ND	0.0050		mg/L	5	4/16/2012 4:24:36 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.020	0.0025	*	mg/L	2.5	4/4/2012 12:40:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203801-003 **Matrix:** AQUEOUS

Client Sample ID: Oil Sump LDU
Collection Date: 3/20/2012 10:10:00 AM
Received Date: 3/21/2012 12:47:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Selenium	0.012	0.0025		mg/L	2.5	4/4/2012 12:40:28 PM
Uranium	ND	0.0025		mg/L	2.5	4/4/2012 12:40:28 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.0017	0.00020		mg/L	1	3/23/2012 4:17:06 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.7	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.5	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Copper	0.49	0.0060	0.5000	0	97.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.49	0.0050	0.5000	0	98.0	85	115			
Manganese	0.48	0.0020	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **1203801-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **R1956**	RunNo: **1956**
Prep Date:	Analysis Date: **4/6/2012**	SeqNo: **55290** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.88	0.0020	0.5000	0.4210	92.5	70	130			
Cadmium	0.49	0.0020	0.5000	0	98.2	70	130			
Chromium	0.60	0.0060	0.5000	0.1110	97.1	70	130			
Copper	0.51	0.0060	0.5000	0	102	70	130			
Lead	0.47	0.0050	0.5000	0	94.7	70	130			
Silver	0.072	0.0050	0.1000	0	71.5	70	130			
Zinc	0.54	0.010	0.5000	0.03485	100	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203801-001BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **East LDU** Batch ID: **R1956** RunNo: **1956**

Prep Date: Analysis Date: **4/6/2012** SeqNo: **55291** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.87	0.0020	0.5000	0.4210	90.6	70	130	1.07	20	
Cadmium	0.48	0.0020	0.5000	0	96.5	70	130	1.71	20	
Chromium	0.59	0.0060	0.5000	0.1110	95.6	70	130	1.27	20	
Copper	0.50	0.0060	0.5000	0	100	70	130	1.80	20	
Lead	0.47	0.0050	0.5000	0	93.2	70	130	1.62	20	
Silver	0.053	0.0050	0.1000	0	52.7	70	130	30.4	20	SR
Zinc	0.53	0.010	0.5000	0.03485	99.1	70	130	0.925	20	

Sample ID **1203801-001BMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **East LDU** Batch ID: **R1956** RunNo: **1956**

Prep Date: Analysis Date: **4/6/2012** SeqNo: **55293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.3	0.10	2.500	0.9020	97.1	70	130			
Manganese	2.9	0.010	2.500	0.5988	92.6	70	130			

Sample ID **1203801-001BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **East LDU** Batch ID: **R1956** RunNo: **1956**

Prep Date: Analysis Date: **4/6/2012** SeqNo: **55294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.3	0.10	2.500	0.9020	94.8	70	130	1.72	20	
Manganese	2.9	0.010	2.500	0.5988	93.0	70	130	0.276	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1231**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1231**	RunNo: **1760**
Prep Date: **3/26/2012**	Analysis Date: **3/28/2012**	SeqNo: **49464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Sample ID **LCS-1231**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1231**	RunNo: **1760**
Prep Date: **3/26/2012**	Analysis Date: **3/28/2012**	SeqNo: **49465** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	97.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.8	85	115			

Sample ID **MB-1231**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1231**	RunNo: **1800**
Prep Date: **3/26/2012**	Analysis Date: **3/29/2012**	SeqNo: **50461** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1231**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1231**	RunNo: **1800**
Prep Date: **3/26/2012**	Analysis Date: **3/29/2012**	SeqNo: **50462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Copper	0.47	0.0060	0.5000	0	94.6	85	115			
Iron	0.47	0.020	0.5000	0	93.8	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59445** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59446** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2139**	RunNo: **2139**
Prep Date:	Analysis Date: **4/13/2012**	SeqNo: **59450** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0.005266	91.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203801**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60429** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.024	0.0010	0.02500	0	96.5	85	115			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60436** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0.0007840	97.5	70	130			
Uranium	0.032	0.0010	0.02500	0.007582	97.1	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID	**MB-1231**	SampType:	**MBLK**	TestCode:	**200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID:	**1231**	RunNo:	**1906**					
Prep Date:	**3/26/2012**	Analysis Date:	**4/4/2012**	SeqNo:	**53644**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1217**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1217**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1203766-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1203766-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1217**	RunNo: **1649**
Prep Date: **3/23/2012**	Analysis Date: **3/23/2012**	SeqNo: **46697** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.0010	0.005000	0	111	75	125	2.60	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1190**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		102	61.3	164			

Sample ID **LCS-1190**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45460** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.9	1.0	5.000	0	97.9	74	157			
Surr: DNOP	0.50		0.5000		101	61.3	164			

Sample ID **LCSD-1190**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1190**	RunNo: **1609**
Prep Date: **3/22/2012**	Analysis Date: **3/22/2012**	SeqNo: **45474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157	10.5	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49064** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	19		20.00		93.2	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49065** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	16		20.00		79.3	69.3	120			

Sample ID **1203798-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49127** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	9,700		10,000		97.0	69.3	120			

Sample ID **1203798-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1744**	RunNo: **1744**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49128** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	8,200		10,000		81.8	69.3	120	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1772**	RunNo: **1772**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	15		20.00		74.5	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1772**	RunNo: **1772**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.58	0.050	0.5000	0	117	101	123			
Surr: BFB	20		20.00		98.3	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203858-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1772**	RunNo: **1772**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49780** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.73	0.050	0.5000	0.1362	119	75.4	121			
Surr: BFB	19		20.00		97.3	69.3	120			

Sample ID **1203858-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1772**	RunNo: **1772**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49781** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.74	0.050	0.5000	0.1362	122	75.4	121	1.68	10.5	S
Surr: BFB	20		20.00		99.4	69.3	120	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1745**	RunNo: **1745**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49132** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		95.1	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1745**	RunNo: **1745**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49133** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	18		20.00		91.8	55	140			

Sample ID **1203740-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1745**	RunNo: **1745**
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **49148** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	220		200.0		110	55	140			

Sample ID **1203740-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1745**	RunNo: **1745**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49149** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	220		200.0		111	55	140	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R1774**	RunNo: **1774**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	15		20.00		76.7	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1774**	RunNo: **1774**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49789** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	101	50.5	158			
Benzene	21	1.0	20.00	0	105	80	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203801**

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R1774** RunNo: **1774**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49789** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	23	1.0	20.00	0	113	80	120			
Ethylbenzene	23	1.0	20.00	0	113	80	120			
Xylenes, Total	68	2.0	60.00	0	113	80	120			
Surr: 4-Bromofluorobenzene	22		20.00		111	55	140			

Sample ID **1203995-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R1774** RunNo: **1774**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49812** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1,000	120	1,000	0	104	58	139			
Benzene	1,200	50	1,000	156.1	103	70.1	118			
Toluene	1,400	50	1,000	329.6	105	72.3	117			
Ethylbenzene	1,100	50	1,000	28.60	105	73.5	117			
Xylenes, Total	3,400	100	3,000	193.2	106	73.1	119			
Surr: 4-Bromofluorobenzene	1,100		1,000		105	55	140			

Sample ID **1203995-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R1774** RunNo: **1774**

Prep Date: Analysis Date: **3/28/2012** SeqNo: **49814** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1,100	120	1,000	0	107	58	139	3.19	15.2	
Benzene	1,200	50	1,000	156.1	104	70.1	118	0.747	16.4	
Toluene	1,400	50	1,000	329.6	108	72.3	117	2.22	13.9	
Ethylbenzene	1,100	50	1,000	28.60	108	73.5	117	2.51	13.5	
Xylenes, Total	3,500	100	3,000	193.2	109	73.1	119	2.51	12.9	
Surr: 4-Bromofluorobenzene	900		1,000		90.1	55	140	0	0	

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R1804** RunNo: **1804**

Prep Date: Analysis Date: **3/29/2012** SeqNo: **50456** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Surr: 4-Bromofluorobenzene	20		20.00		101	55	140			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R1804** RunNo: **1804**

Prep Date: Analysis Date: **3/29/2012** SeqNo: **50457** Units: **µg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203801**

Hall Environmental Analysis Laboratory, Inc.

18-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R1804**	RunNo: **1804**
Prep Date:	Analysis Date: **3/29/2012**	SeqNo: **50457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	22	1.0	20.00	0	112	80	120			
Surr: 4-Bromofluorobenzene	18		20.00		88.5	55	140			

Sample ID **1203909-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1804**	RunNo: **1804**
Prep Date:	Analysis Date: **3/29/2012**	SeqNo: **50478** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	42	2.0	40.00	0	106	72.3	117			
Surr: 4-Bromofluorobenzene	42		40.00		104	55	140			

Sample ID **1203909-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R1804**	RunNo: **1804**
Prep Date:	Analysis Date: **3/29/2012**	SeqNo: **50479** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	42	2.0	40.00	0	105	72.3	117	0.171	13.9	
Surr: 4-Bromofluorobenzene	35		40.00		86.6	55	140	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup | Work Order Number: 1203801

Received by/date: 03/21/12

Logged By: **Ashley Gallegos** 3/21/2012 12:47:00 PM

Completed By: **Ashley Gallegos** 3/21/2012 4:02:18 PM

Reviewed By: AT 03/22/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☑ No ☑ NA ☐

60SC, 90IC - ADDED 1mL HNO3 FOR ACCEPTABLE pH - AT 03/22/12

11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)

Adjusted? YES

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain of Custody Record

Client: Wes Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: T. Fleener / S. Ukele

On Ice: ☒ Yes ☐ No

Sample Temperature: 0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1203801	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
3-20-12	1030	W	East LDU	Various	Various	-001	X	X	X
↓	1040	↓	West LDU	↓	↓	-002	X	X	X
↓	1010	↓	Oil Sump LDU	↓	↓	-003	X	X	X

Date	Time	Relinquished by:	Received by:	Date	Time
3/21/12	0830			3/21/12	0830
3-21-12		Relinquished by:	Received by:	03/21/12	1247

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 23, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203898

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/23/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203898**
Date Reported: **4/23/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203898-001 **Matrix:** AQUEOUS

Client Sample ID: OW-50
Collection Date: 3/22/2012 1:50:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/26/2012 1:09:06 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/26/2012 1:09:06 PM
Surr: DNOP	112	61.3-164		%REC	1	3/26/2012 1:09:06 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/30/2012 8:28:13 PM
Surr: BFB	71.3	69.3-120		%REC	1	3/30/2012 8:28:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.59	0.50		mg/L	5	3/28/2012 6:51:56 AM
Chloride	27	10		mg/L	20	3/24/2012 2:07:16 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2012 1:54:52 AM
Bromide	0.22	0.10		mg/L	1	3/24/2012 1:54:52 AM
Nitrogen, Nitrate (As N)	0.15	0.10		mg/L	1	3/24/2012 1:54:52 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2012 1:54:52 AM
Sulfate	150	10		mg/L	20	3/24/2012 2:07:16 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.041	0.0020		mg/L	1	4/5/2012 5:37:09 PM
Cadmium	ND	0.0020		mg/L	1	4/5/2012 5:37:09 PM
Calcium	22	1.0		mg/L	1	4/5/2012 5:37:09 PM
Chromium	ND	0.0060		mg/L	1	4/5/2012 5:37:09 PM
Copper	ND	0.0060		mg/L	1	4/5/2012 5:37:09 PM
Iron	ND	0.020		mg/L	1	4/5/2012 5:37:09 PM
Lead	ND	0.0050		mg/L	1	4/5/2012 5:37:09 PM
Magnesium	3.8	1.0		mg/L	1	4/5/2012 5:37:09 PM
Manganese	0.082	0.0020	*	mg/L	1	4/5/2012 5:37:09 PM
Potassium	ND	1.0		mg/L	1	4/5/2012 5:37:09 PM
Silver	ND	0.0050		mg/L	1	4/5/2012 5:37:09 PM
Sodium	250	5.0		mg/L	5	4/5/2012 5:40:36 PM
Zinc	0.039	0.010		mg/L	1	4/5/2012 5:37:09 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.029	0.0020		mg/L	1	3/30/2012 7:10:08 PM
Cadmium	ND	0.0020		mg/L	1	3/30/2012 7:10:08 PM
Chromium	ND	0.0060		mg/L	1	4/2/2012 6:21:44 PM
Copper	ND	0.0060		mg/L	1	3/30/2012 7:10:08 PM
Iron	0.31	0.020	*	mg/L	1	3/30/2012 7:10:08 PM
Lead	ND	0.0050		mg/L	1	3/30/2012 7:10:08 PM
Manganese	0.035	0.0020		mg/L	1	3/30/2012 7:10:08 PM
Silver	ND	0.0050		mg/L	1	3/30/2012 7:10:08 PM
Zinc	ND	0.010		mg/L	1	4/2/2012 6:21:44 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203898-001 **Matrix:** AQUEOUS

Client Sample ID: OW-50
Collection Date: 3/22/2012 1:50:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0019	0.0010		mg/L	1	4/12/2012 7:18:18 PM
Selenium	ND	0.0010		mg/L	1	4/16/2012 4:26:28 PM
Uranium	0.0076	0.0010		mg/L	1	4/16/2012 4:26:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	4/4/2012 12:56:12 PM
Selenium	ND	0.0025		mg/L	2.5	4/4/2012 12:56:12 PM
Uranium	0.011	0.0025		mg/L	2.5	4/4/2012 12:56:12 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/29/2012 3:40:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Acenaphthylene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Aniline	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Anthracene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Azobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benz(a)anthracene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benzo(a)pyrene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Benzoic acid	ND	20		µg/L	1	4/2/2012 1:43:03 PM
Benzyl alcohol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Butyl benzyl phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Carbazole	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Chloroaniline	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Chloronaphthalene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Chlorophenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Chrysene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Di-n-butyl phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Di-n-octyl phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Dibenzofuran	ND	10		µg/L	1	4/2/2012 1:43:03 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 1:50:00 PM
Lab ID: 1203898-001 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Diethyl phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Dimethyl phthalate	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2,4-Dichlorophenol	ND	20		µg/L	1	4/2/2012 1:43:03 PM
2,4-Dimethylphenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	4/2/2012 1:43:03 PM
2,4-Dinitrophenol	ND	20		µg/L	1	4/2/2012 1:43:03 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Fluoranthene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Fluorene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Hexachlorobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Hexachlorobutadiene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Hexachloroethane	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Isophorone	ND	10		µg/L	1	4/2/2012 1:43:03 PM
1-Methylnaphthalene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Methylnaphthalene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Methylphenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
3+4-Methylphenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/2/2012 1:43:03 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	4/2/2012 1:43:03 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Naphthalene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Nitroaniline	ND	10		µg/L	1	4/2/2012 1:43:03 PM
3-Nitroaniline	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Nitroaniline	ND	20		µg/L	1	4/2/2012 1:43:03 PM
Nitrobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2-Nitrophenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
4-Nitrophenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Pentachlorophenol	ND	20		µg/L	1	4/2/2012 1:43:03 PM
Phenanthrene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Phenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Pyrene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Pyridine	ND	10		µg/L	1	4/2/2012 1:43:03 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	4/2/2012 1:43:03 PM
Surr: 2,4,6-Tribromophenol	68.8	18.1-138		%REC	1	4/2/2012 1:43:03 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 1:50:00 PM
Lab ID: 1203898-001
Matrix: AQUEOUS
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	58.5	25.9-101		%REC	1	4/2/2012 1:43:03 PM
Surr: 2-Fluorophenol	47.7	12.5-93.2		%REC	1	4/2/2012 1:43:03 PM
Surr: 4-Terphenyl-d14	61.9	29.5-112		%REC	1	4/2/2012 1:43:03 PM
Surr: Nitrobenzene-d5	61.3	20.5-120		%REC	1	4/2/2012 1:43:03 PM
Surr: Phenol-d5	35.0	11.5-73.2		%REC	1	4/2/2012 1:43:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Naphthalene	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 6:08:07 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 6:08:07 AM
Acetone	ND	10		µg/L	1	3/24/2012 6:08:07 AM
Bromobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Bromoform	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Bromomethane	ND	3.0		µg/L	1	3/24/2012 6:08:07 AM
2-Butanone	ND	10		µg/L	1	3/24/2012 6:08:07 AM
Carbon disulfide	ND	10		µg/L	1	3/24/2012 6:08:07 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Chlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Chloroethane	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
Chloroform	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Chloromethane	ND	3.0		µg/L	1	3/24/2012 6:08:07 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Dibromomethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 1:50:00 PM
Lab ID: 1203898-001 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
2-Hexanone	ND	10		µg/L	1	3/24/2012 6:08:07 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/24/2012 6:08:07 AM
Methylene Chloride	ND	3.0		µg/L	1	3/24/2012 6:08:07 AM
n-Butylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Styrene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/24/2012 6:08:07 AM
Vinyl chloride	ND	1.0		µg/L	1	3/24/2012 6:08:07 AM
Xylenes, Total	ND	1.5		µg/L	1	3/24/2012 6:08:07 AM
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	3/24/2012 6:08:07 AM
Surr: 4-Bromofluorobenzene	90.1	70-130		%REC	1	3/24/2012 6:08:07 AM
Surr: Dibromofluoromethane	79.2	69.8-130		%REC	1	3/24/2012 6:08:07 AM
Surr: Toluene-d8	89.0	70-130		%REC	1	3/24/2012 6:08:07 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JLF**
Conductivity	1,000	0.010		µmhos/cm	1	3/27/2012 11:49:45 AM
SM4500-H+B: PH						Analyst: **JLF**
pH	8.35	1.68	H	pH units	1	3/27/2012 11:49:45 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203898-002 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 3/22/2012 2:55:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/26/2012 1:34:29 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/26/2012 1:34:29 PM
Surr: DNOP	110	61.3-164		%REC	1	3/26/2012 1:34:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/30/2012 10:59:16 PM
Surr: BFB	87.5	69.3-120		%REC	1	3/30/2012 10:59:16 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.56	0.10		mg/L	1	3/24/2012 2:19:40 AM
Chloride	26	10		mg/L	20	3/24/2012 2:32:05 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2012 2:19:40 AM
Bromide	0.17	0.10		mg/L	1	3/24/2012 2:19:40 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	3/24/2012 2:19:40 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2012 2:19:40 AM
Sulfate	130	10		mg/L	20	3/24/2012 2:32:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.025	0.0020		mg/L	1	4/5/2012 5:43:37 PM
Cadmium	ND	0.0020		mg/L	1	4/5/2012 5:43:37 PM
Calcium	4.2	1.0		mg/L	1	4/5/2012 5:43:37 PM
Chromium	ND	0.0060		mg/L	1	4/5/2012 5:43:37 PM
Copper	ND	0.0060		mg/L	1	4/5/2012 5:43:37 PM
Iron	0.071	0.020		mg/L	1	4/5/2012 5:43:37 PM
Lead	ND	0.0050		mg/L	1	4/5/2012 5:43:37 PM
Magnesium	ND	1.0		mg/L	1	4/5/2012 5:43:37 PM
Manganese	0.030	0.0020		mg/L	1	4/5/2012 5:43:37 PM
Potassium	1.2	1.0		mg/L	1	4/5/2012 5:43:37 PM
Silver	ND	0.0050		mg/L	1	4/5/2012 5:43:37 PM
Sodium	250	5.0		mg/L	5	4/5/2012 5:46:56 PM
Zinc	0.084	0.010		mg/L	1	4/5/2012 5:43:37 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.072	0.0020		mg/L	1	3/29/2012 3:58:23 PM
Cadmium	ND	0.0020		mg/L	1	3/29/2012 3:58:23 PM
Chromium	ND	0.0060		mg/L	1	3/29/2012 3:58:23 PM
Copper	ND	0.0060		mg/L	1	3/29/2012 3:58:23 PM
Iron	0.52	0.020	*	mg/L	1	3/29/2012 3:58:23 PM
Lead	ND	0.0050		mg/L	1	3/29/2012 3:58:23 PM
Manganese	0.094	0.0020	*	mg/L	1	3/29/2012 3:58:23 PM
Silver	ND	0.0050		mg/L	1	3/29/2012 3:58:23 PM
Zinc	ND	0.010		mg/L	1	4/2/2012 6:28:33 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 2:55:00 PM
Lab ID: 1203898-002
Matrix: AQUEOUS
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0010		mg/L	1	4/12/2012 7:22:02 PM
Selenium	ND	0.0010		mg/L	1	4/16/2012 4:30:13 PM
Uranium	0.010	0.0010		mg/L	1	4/16/2012 4:30:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	4/4/2012 1:00:08 PM
Selenium	ND	0.0025		mg/L	2.5	4/4/2012 1:00:08 PM
Uranium	0.0076	0.0025		mg/L	2.5	4/4/2012 1:00:08 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/29/2012 3:42:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Acenaphthylene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Aniline	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Anthracene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Azobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benz(a)anthracene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benzo(a)pyrene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Benzoic acid	ND	20		µg/L	1	4/2/2012 2:12:21 PM
Benzyl alcohol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Butyl benzyl phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Carbazole	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Chloroaniline	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Chloronaphthalene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Chlorophenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Chrysene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Di-n-butyl phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Di-n-octyl phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Dibenzofuran	ND	10		µg/L	1	4/2/2012 2:12:21 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203898-002 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 3/22/2012 2:55:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Diethyl phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Dimethyl phthalate	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2,4-Dichlorophenol	ND	20		µg/L	1	4/2/2012 2:12:21 PM
2,4-Dimethylphenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	4/2/2012 2:12:21 PM
2,4-Dinitrophenol	ND	20		µg/L	1	4/2/2012 2:12:21 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Fluoranthene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Fluorene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Hexachlorobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Hexachlorobutadiene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Hexachloroethane	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Isophorone	ND	10		µg/L	1	4/2/2012 2:12:21 PM
1-Methylnaphthalene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Methylnaphthalene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Methylphenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
3+4-Methylphenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	4/2/2012 2:12:21 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	4/2/2012 2:12:21 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Naphthalene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Nitroaniline	ND	10		µg/L	1	4/2/2012 2:12:21 PM
3-Nitroaniline	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Nitroaniline	ND	20		µg/L	1	4/2/2012 2:12:21 PM
Nitrobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2-Nitrophenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
4-Nitrophenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Pentachlorophenol	ND	20		µg/L	1	4/2/2012 2:12:21 PM
Phenanthrene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Phenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Pyrene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Pyridine	ND	10		µg/L	1	4/2/2012 2:12:21 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	4/2/2012 2:12:21 PM
Surr: 2,4,6-Tribromophenol	70.8	18.1-138		%REC	1	4/2/2012 2:12:21 PM

Qualifiers:
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 2:55:00 PM
Lab ID: 1203898-002 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	58.5	25.9-101		%REC	1	4/2/2012 2:12:21 PM
Surr: 2-Fluorophenol	46.7	12.5-93.2		%REC	1	4/2/2012 2:12:21 PM
Surr: 4-Terphenyl-d14	61.9	29.5-112		%REC	1	4/2/2012 2:12:21 PM
Surr: Nitrobenzene-d5	60.2	20.5-120		%REC	1	4/2/2012 2:12:21 PM
Surr: Phenol-d5	34.7	11.5-73.2		%REC	1	4/2/2012 2:12:21 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Acetone	ND	10		µg/L	1	3/24/2012 6:35:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Bromoform	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Bromomethane	ND	3.0		µg/L	1	3/24/2012 6:35:50 AM
2-Butanone	ND	10		µg/L	1	3/24/2012 6:35:50 AM
Carbon disulfide	ND	10		µg/L	1	3/24/2012 6:35:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Chlorobenzene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Chloroethane	ND	2.0		µg/L	1	3/24/2012 6:35:50 AM
2-Chloroethyl vinyl ether	ND	10		µg/L	1	3/24/2012 6:35:50 AM
Chloroform	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Chloromethane	ND	3.0		µg/L	1	3/24/2012 6:35:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
2-Hexanone	ND	10		µg/L	1	3/24/2012 6:35:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/24/2012 6:35:50 AM
Methylene Chloride	ND	3.0		µg/L	1	3/24/2012 6:35:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/24/2012 6:35:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM
Vinyl chloride	ND	1.0		µg/L	1	3/24/2012 6:35:50 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203898-002 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 3/22/2012 2:55:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Xylenes, Total	ND	1.5		µg/L	1	3/24/2012 6:35:50 AM
Surr: 1,2-Dichloroethane-d4	88.1	70-130		%REC	1	3/24/2012 6:35:50 AM
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	3/24/2012 6:35:50 AM
Surr: Dibromofluoromethane	75.1	69.8-130		%REC	1	3/24/2012 6:35:50 AM
Surr: Toluene-d8	91.6	70-130		%REC	1	3/24/2012 6:35:50 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JLF**
Conductivity	990	0.010		µmhos/cm	1	3/27/2012 11:53:45 AM
SM4500-H+B: PH						Analyst: **JLF**
pH	8.35	1.68	H	pH units	1	3/27/2012 11:53:45 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203B48-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0.02652	90.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.4	70	130			
Chromium	0.46	0.0060	0.5000	0	91.8	70	130			
Copper	0.47	0.0060	0.5000	0.005490	92.5	70	130			
Iron	0.57	0.020	0.5000	0.1087	92.5	70	130			
Magnesium	59	1.0	50.00	6.395	105	70	130			
Manganese	0.52	0.0020	0.5000	0.07564	88.6	70	130			
Silver	0.096	0.0050	0.1000	0	96.3	70	130			
Sodium	57	1.0	50.00	4.650	105	70	130			
Zinc	0.48	0.010	0.5000	0.01507	92.8	70	130			

Sample ID **1203B48-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54376** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.02652	92.4	70	130	2.01	20	
Cadmium	0.48	0.0020	0.5000	0	96.5	70	130	1.16	20	
Chromium	0.47	0.0060	0.5000	0	93.8	70	130	2.14	20	
Copper	0.48	0.0060	0.5000	0.005490	94.3	70	130	2.00	20	
Iron	0.58	0.020	0.5000	0.1087	94.7	70	130	1.97	20	
Magnesium	57	1.0	50.00	6.395	100	70	130	4.16	20	
Manganese	0.53	0.0020	0.5000	0.07564	90.4	70	130	1.73	20	
Silver	0.098	0.0050	0.1000	0	97.7	70	130	1.47	20	
Sodium	55	1.0	50.00	4.650	100	70	130	4.87	20	
Zinc	0.49	0.010	0.5000	0.01507	95.5	70	130	2.82	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1953**	RunNo: **1953**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **54474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1953**	RunNo: **1953**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **54475** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.3	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Lead	0.50	0.0050	0.5000	0	99.0	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
[illegible]anese	0.48	0.0020	0.5000	0	96.1	85	115			
[illegible]ssium	49	1.0	50.00	0	98.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.6	85	115			

Qualifiers:

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QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1231**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1231**	RunNo: **1760**
Prep Date: **3/26/2012**	Analysis Date: **3/28/2012**	SeqNo: **49464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Manganese	ND	0.0020								

Sample ID **LCS-1231**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1231**	RunNo: **1760**
Prep Date: **3/26/2012**	Analysis Date: **3/28/2012**	SeqNo: **49465** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.50	0.0060	0.5000	0	99.3	85	115			
Lead	0.49	0.0050	0.5000	0	97.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.8	85	115			

Sample ID **MB-1231**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1231**	RunNo: **1800**
Prep Date: **3/26/2012**	Analysis Date: **3/29/2012**	SeqNo: **50461** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1231**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1231**	RunNo: **1800**
Prep Date: **3/26/2012**	Analysis Date: **3/29/2012**	SeqNo: **50462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.47	0.0020	0.5000	0	94.6	85	115			
Copper	0.47	0.0060	0.5000	0	94.6	85	115			
Iron	0.47	0.020	0.5000	0	93.8	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **OW-50**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60429** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.024	0.0010	0.02500	0	96.5	85	115			

Qualifiers:

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- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **OW-50**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60436** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0.0007840	97.5	70	130			
Uranium	0.032	0.0010	0.02500	0.007582	97.1	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1231**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**	
Client ID: **PBW**	Batch ID: **1231**	RunNo: **1906**	
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**	SeqNo: **53644**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1297**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **1297**	RunNo: **1786**
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50512** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1297**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **1297**	RunNo: **1786**
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.6	80	120			

Sample ID **1203721-004AMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50515** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.8	75	125			

Sample ID **1203721-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50516** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.8	75	125	0.996	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- B Analyte detected in the associated Method Blank
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- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R1676** RunNo: **1676**

Prep Date: Analysis Date: **3/23/2012** SeqNo: **47441** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R1676** RunNo: **1676**

Prep Date: Analysis Date: **3/23/2012** SeqNo: **47442** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.0	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.4	90	110			
Bromide	2.4	0.10	2.500	0	96.9	90	110			
ıen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
₃phorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.0	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1203869-002AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1676** RunNo: **1676**

Prep Date: Analysis Date: **3/23/2012** SeqNo: **47454** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.10	0.5000	2.674	78.2	72.9	113			
Bromide	2.8	0.10	2.500	0.4144	96.0	76	114			

Sample ID **1203869-002AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1676** RunNo: **1676**

Prep Date: Analysis Date: **3/23/2012** SeqNo: **47455** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.10	0.5000	2.674	79.9	72.9	113	0.272	20	
Bromide	2.8	0.10	2.500	0.4144	96.2	76	114	0.199	20	

Sample ID **1203890-005AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R1676** RunNo: **1676**

Prep Date: Analysis Date: **3/23/2012** SeqNo: **47478** Units: **mg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203890-005AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R1676** RunNo: **1676**
Prep Date: Analysis Date: **3/23/2012** SeqNo: **47478** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.9	0.10	0.5000	1.549	79.6	72.9	113			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.1	77.6	111			
Bromide	2.8	0.10	2.500	0.3093	98.5	76	114			

Sample ID **1203890-005AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R1676** RunNo: **1676**
Prep Date: Analysis Date: **3/23/2012** SeqNo: **47479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.549	84.7	72.9	113	1.29	20	
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.5	77.6	111	3.53	20	
Bromide	2.9	0.10	2.500	0.3093	102	76	114	3.02	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R1735** RunNo: **1735**
Prep Date: Analysis Date: **3/27/2012** SeqNo: **48783** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R1735** RunNo: **1735**
Prep Date: Analysis Date: **3/27/2012** SeqNo: **48784** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.6	90	110			

Sample ID **1203962-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**
Prep Date: Analysis Date: **3/27/2012** SeqNo: **48802** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.69	0.10	0.5000	0.2249	92.2	72.9	113			

Sample ID **1203962-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R1735** RunNo: **1735**
Prep Date: Analysis Date: **3/27/2012** SeqNo: **48803** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.69	0.10	0.5000	0.2249	92.7	72.9	113	0.395	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48837**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48838**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			

Sample ID **1203975-001CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **48847**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.68	0.10	0.5000	0.1727	101	72.9	113			

Sample ID **1203975-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **48848**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.1727	99.9	72.9	113	0.500	20	

Sample ID **1203994-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **48856**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2686	98.8	72.9	113			

Sample ID **1203994-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R1735**	RunNo: **1735**							
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **48857**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.77	0.10	0.5000	0.2686	100	72.9	113	1.00	20	

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1239**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47729** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	61.3	164			

Sample ID **LCS-1239**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	105	74	157			
Surr: DNOP	0.55		0.5000		110	61.3	164			

Sample ID **LCSD-1239**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	10.7	23	
Surr: DNOP	0.57		0.5000		114	61.3	164	0	0	

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51848** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.3	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51849** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	113	101	123			
Surr: BFB	19		20.00		94.2	69.3	120			

Sample ID **1203965-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.4	0.25	2.500	0.9890	95.4	75.4	121			
Surr: BFB	76		100.0		76.0	69.3	120			

Sample ID **1203965-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/31/2012**	SeqNo: **51875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.6	0.25	2.500	0.9890	105	75.4	121	6.57	10.5	
Surr: BFB	99		100.0		99.4	69.3	120	0	0	

Qualifiers:

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QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R1670**	RunNo: **1670**	
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47207**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1670**	RunNo: **1670**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47207** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.2	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	7.6		10.00		75.9	69.8	130			
Surr: Toluene-d8	9.2		10.00		91.9	70	130			

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1670**	RunNo: **1670**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47215** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	84.1	126			
Toluene	20	1.0	20.00	0	97.6	80	120			
Chlorobenzene	19	1.0	20.00	0	95.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.6	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	92.7	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		87.6	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100ng lcs-c**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **LCSW**	Batch ID: **R1670**	RunNo: **1670**	
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47215**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	7.6		10.00		75.8	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.0	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1292**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **1292**	RunNo: **1849**	
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **52151**	Units: **µg/L**

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

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1292**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **1292**	RunNo: **1849**	
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **52151**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	110		200.0		53.2	18.1	138			
Surr: 2-Fluorobiphenyl	51		100.0		51.2	25.9	101			
Surr: 2-Fluorophenol	90		200.0		45.2	12.5	93.2			
Surr: 4-Terphenyl-d14	53		100.0		52.5	29.5	112			
Surr: Nitrobenzene-d5	53		100.0		53.5	20.5	120			
Surr: Phenol-d5	71		200.0		35.4	11.5	73.2			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **LCS-1292**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **1292**	RunNo: **1849**
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **52153** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	53	10	100.0	0	53.0	37.7	119			
4-Chloro-3-methylphenol	120	10	200.0	0	61.4	48.8	104			
2-Chlorophenol	120	10	200.0	0	58.3	38.2	109			
1,4-Dichlorobenzene	49	10	100.0	0	48.9	33.7	99.1			
2,4-Dinitrotoluene	60	10	100.0	0	60.0	39.9	125			
N-Nitrosodi-n-propylamine	60	10	100.0	0	60.3	43.8	95.1			
4-Nitrophenol	64	10	200.0	0	32.1	21.7	68.6			
Pentachlorophenol	70	20	200.0	0	34.9	26.7	107			
Phenol	74	10	200.0	0	37.0	23.9	65.8			
Pyrene	56	10	100.0	0	56.5	45.7	107			
1,2,4-Trichlorobenzene	57	10	100.0	0	56.7	30.8	104			
Surr: 2,4,6-Tribromophenol	130		200.0		67.1	18.1	138			
Surr: 2-Fluorobiphenyl	55		100.0		55.4	25.9	101			
Surr: 2-Fluorophenol	87		200.0		43.7	12.5	93.2			
Surr: 4-Terphenyl-d14	60		100.0		59.9	29.5	112			
Surr: Nitrobenzene-d5	59		100.0		59.1	20.5	120			
Surr: Phenol-d5	70		200.0		35.2	11.5	73.2			

Sample ID **LCSD-1292**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **1292**	RunNo: **1849**
Prep Date: **3/29/2012**	Analysis Date: **4/2/2012**	SeqNo: **52155** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	58	10	100.0	0	57.9	37.7	119	8.76	20	
4-Chloro-3-methylphenol	130	10	200.0	0	65.0	48.8	104	5.59	20	
2-Chlorophenol	120	10	200.0	0	61.2	38.2	109	4.88	20	
1,4-Dichlorobenzene	50	10	100.0	0	50.1	33.7	99.1	2.55	20	
2,4-Dinitrotoluene	68	10	100.0	0	67.9	39.9	125	12.3	20	
N-Nitrosodi-n-propylamine	64	10	100.0	0	63.8	43.8	95.1	5.64	20	
4-Nitrophenol	81	10	200.0	0	40.6	21.7	68.6	23.4	20	R
Pentachlorophenol	100	20	200.0	0	50.4	26.7	107	36.3	20	R
Phenol	78	10	200.0	0	38.9	23.9	65.8	4.93	20	
Pyrene	60	10	100.0	0	60.4	45.7	107	6.77	20	
1,2,4-Trichlorobenzene	57	10	100.0	0	57.3	30.8	104	1.09	20	
Surr: 2,4,6-Tribromophenol	140		200.0		72.4	18.1	138	0	0	
Surr: 2-Fluorobiphenyl	60		100.0		59.7	25.9	101	0	0	
Surr: 2-Fluorophenol	92		200.0		46.2	12.5	93.2	0	0	
Surr: 4-Terphenyl-d14	63		100.0		63.0	29.5	112	0	0	
Surr: Nitrobenzene-d5	58		100.0		58.1	20.5	120	0	0	
Surr: Phenol-d5	73		200.0		36.3	11.5	73.2	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203898**

Hall Environmental Analysis Laboratory, Inc.

23-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203902-001b dup**	SampType: **DUP**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **BatchQC**	Batch ID: **R1724**	RunNo: **1724**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48557**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	900	0.010						0.946	20	

Sample ID **1203953-001c dup**	SampType: **DUP**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **BatchQC**	Batch ID: **R1724**	RunNo: **1724**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48566**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	1,400	0.010						0.934	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203898**

23-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203902-001b dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R1724**	RunNo: **1724**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48570**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.54	1.68								H

Sample ID **1203953-001c dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R1724**	RunNo: **1724**							
Prep Date:	Analysis Date: **3/27/2012**	SeqNo: **48578**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.67	1.68								H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203898

Received by/date: MG 03/23/12

Logged By: Anne Thorne — 3/23/2012 11:07:00 AM — Anne Thorne

Completed By: Anne Thorne — 3/23/2012 — Anne Thorne

Reviewed By: 03/23/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? — Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? — Yes ☑ No ☐
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 2 6 (<2 or >12 unless noted)
Adjusted? —
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☑ NA ☐

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

Client: W... Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☑ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0 °

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1203898	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)				Air Bubbles (Y or N)
3-22-12	1350	Water	OW-50	Various	Various	-001	X	X	X	X	X	
↓	1455	↓	OW-52	↓	↓	-002	X	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-23-12	1107				
Date:	Time:	Relinquished by:	Received by:	03/23/12 Date	1107 Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

April 19, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 1st QTR 2012 Groundwater Sampling OrderNo.: 1203905

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 3/23/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1203905**
Date Reported: **4/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 3:35:00 PM
Lab ID: 1203905-001 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/26/2012 1:59:49 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/26/2012 1:59:49 PM
Surr: DNOP	117	61.3-164		%REC	1	3/26/2012 1:59:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/31/2012 6:01:20 AM
Surr: BFB	83.5	69.3-120		%REC	1	3/31/2012 6:01:20 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.34	0.10		mg/L	1	3/24/2012 2:44:29 AM
Chloride	62	10		mg/L	20	3/24/2012 2:56:53 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2012 2:44:29 AM
Bromide	0.27	0.10		mg/L	1	3/24/2012 2:44:29 AM
Nitrogen, Nitrate (As N)	0.33	0.10		mg/L	1	3/24/2012 2:44:29 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2012 2:44:29 AM
Sulfate	170	10		mg/L	20	3/24/2012 2:56:53 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.034	0.0020		mg/L	1	4/5/2012 5:49:57 PM
Cadmium	ND	0.0020		mg/L	1	4/5/2012 5:49:57 PM
Calcium	2.2	1.0		mg/L	1	4/5/2012 5:49:57 PM
Chromium	ND	0.0060		mg/L	1	4/5/2012 5:49:57 PM
Copper	ND	0.0060		mg/L	1	4/5/2012 5:49:57 PM
Iron	ND	0.020		mg/L	1	4/5/2012 5:49:57 PM
Lead	ND	0.0050		mg/L	1	4/5/2012 5:49:57 PM
Magnesium	ND	1.0		mg/L	1	4/5/2012 5:49:57 PM
Manganese	0.0050	0.0020		mg/L	1	4/5/2012 5:49:57 PM
Potassium	ND	1.0		mg/L	1	4/5/2012 5:49:57 PM
Silver	ND	0.0050		mg/L	1	4/5/2012 5:49:57 PM
Sodium	330	5.0		mg/L	5	4/5/2012 5:53:14 PM
Zinc	0.027	0.010		mg/L	1	4/5/2012 5:49:57 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.045	0.0020		mg/L	1	3/26/2012 4:37:27 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:37:27 PM
Chromium	ND	0.0060		mg/L	1	3/27/2012 5:26:28 PM
Copper	ND	0.0060		mg/L	1	3/26/2012 4:37:27 PM
Iron	0.23	0.020		mg/L	1	3/26/2012 4:37:27 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:37:27 PM
Manganese	0.058	0.0020	*	mg/L	1	3/26/2012 4:37:27 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:37:27 PM
Zinc	0.010	0.010		mg/L	1	3/27/2012 5:26:28 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203905-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 3/22/2012 3:35:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0010		mg/L	1	4/12/2012 7:23:54 PM
Selenium	0.0037	0.0010		mg/L	1	4/16/2012 4:32:05 PM
Uranium	0.039	0.0010	*	mg/L	1	4/16/2012 4:32:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	4/4/2012 5:41:22 PM
Selenium	0.0035	0.0025		mg/L	2.5	4/4/2012 5:41:22 PM
Uranium	0.041	0.0025	*	mg/L	2.5	4/4/2012 5:41:22 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/29/2012 3:44:16 PM
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Toluene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Naphthalene	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 11:47:30 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 11:47:30 AM
Acetone	ND	10		µg/L	1	3/28/2012 11:47:30 AM
Bromobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Bromodichloromethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Bromoform	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Bromomethane	ND	3.0		µg/L	1	3/28/2012 11:47:30 AM
2-Butanone	ND	10		µg/L	1	3/28/2012 11:47:30 AM
Carbon disulfide	ND	10		µg/L	1	3/28/2012 11:47:30 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Chlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Chloroethane	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
Chloroform	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Chloromethane	ND	3.0		µg/L	1	3/28/2012 11:47:30 AM
2-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
4-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
cis-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
Dibromochloromethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Dibromomethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 3:35:00 PM
Lab ID: 1203905-001 **Matrix:** AQUEOUS **Received Date:** 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
2-Hexanone	ND	10		µg/L	1	3/28/2012 11:47:30 AM
Isopropylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/28/2012 11:47:30 AM
Methylene Chloride	ND	3.0		µg/L	1	3/28/2012 11:47:30 AM
n-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
n-Propylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
sec-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Styrene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
tert-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
trans-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/28/2012 11:47:30 AM
Vinyl chloride	ND	1.0		µg/L	1	3/28/2012 11:47:30 AM
Xylenes, Total	ND	1.5		µg/L	1	3/28/2012 11:47:30 AM
Surr: 1,2-Dichloroethane-d4	64.3	70-130	S	%REC	1	3/28/2012 11:47:30 AM
Surr: 4-Bromofluorobenzene	83.4	70-130		%REC	1	3/28/2012 11:47:30 AM
Surr: Dibromofluoromethane	76.1	69.8-130		%REC	1	3/28/2012 11:47:30 AM
Surr: Toluene-d8	70.9	70-130		%REC	1	3/28/2012 11:47:30 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203905-002 **Matrix:** AQUEOUS

Client Sample ID: OW-10
Collection Date: 3/22/2012 4:02:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/26/2012 2:50:50 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/26/2012 2:50:50 PM
Surr: DNOP	104	61.3-164		%REC	1	3/26/2012 2:50:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.062	0.050		mg/L	1	4/2/2012 11:52:48 PM
Surr: BFB	91.8	69.3-120		%REC	1	4/2/2012 11:52:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.41	0.10		mg/L	1	3/24/2012 3:09:17 AM
Chloride	260	10		mg/L	20	3/24/2012 3:21:42 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	3/24/2012 3:09:17 AM
Bromide	0.64	0.10		mg/L	1	3/24/2012 3:09:17 AM
Nitrogen, Nitrate (As N)	0.59	0.10		mg/L	1	3/24/2012 3:09:17 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	3/24/2012 3:09:17 AM
Sulfate	140	10		mg/L	20	3/24/2012 3:21:42 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **RAG**
Barium	0.033	0.0020		mg/L	1	4/5/2012 5:56:23 PM
Cadmium	ND	0.0020		mg/L	1	4/5/2012 5:56:23 PM
Calcium	32	1.0		mg/L	1	4/5/2012 5:56:23 PM
Chromium	ND	0.0060		mg/L	1	4/5/2012 5:56:23 PM
Copper	ND	0.0060		mg/L	1	4/5/2012 5:56:23 PM
Iron	ND	0.020		mg/L	1	4/5/2012 5:56:23 PM
Lead	ND	0.0050		mg/L	1	4/5/2012 5:56:23 PM
Magnesium	4.6	1.0		mg/L	1	4/5/2012 5:56:23 PM
Manganese	0.0023	0.0020		mg/L	1	4/5/2012 5:56:23 PM
Potassium	ND	1.0		mg/L	1	4/5/2012 5:56:23 PM
Silver	ND	0.0050		mg/L	1	4/5/2012 5:56:23 PM
Sodium	400	5.0		mg/L	5	4/5/2012 5:59:32 PM
Zinc	0.024	0.010		mg/L	1	4/5/2012 5:56:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **RAG**
Barium	0.033	0.0020		mg/L	1	3/26/2012 4:40:46 PM
Cadmium	ND	0.0020		mg/L	1	3/26/2012 4:40:46 PM
Chromium	ND	0.0060		mg/L	1	3/27/2012 5:31:24 PM
Copper	ND	0.0060		mg/L	1	3/26/2012 4:40:46 PM
Iron	0.029	0.020		mg/L	1	3/26/2012 4:40:46 PM
Lead	ND	0.0050		mg/L	1	3/26/2012 4:40:46 PM
Manganese	ND	0.0020		mg/L	1	3/26/2012 4:40:46 PM
Silver	ND	0.0050		mg/L	1	3/26/2012 4:40:46 PM
Zinc	ND	0.010		mg/L	1	3/27/2012 5:31:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 1st QTR 2012 Groundwater Sampling
Collection Date: 3/22/2012 4:02:00 PM
Lab ID: 1203905-002
Matrix: AQUEOUS
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0010		mg/L	1	4/12/2012 7:25:47 PM
Selenium	0.0076	0.0010		mg/L	1	4/16/2012 4:45:03 PM
Uranium	0.048	0.0010	*	mg/L	1	4/16/2012 4:45:03 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	4/4/2012 5:45:18 PM
Selenium	0.0076	0.0025		mg/L	2.5	4/4/2012 5:45:18 PM
Uranium	0.051	0.0025	*	mg/L	2.5	4/4/2012 5:45:18 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	3/29/2012 3:46:00 PM
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Toluene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Ethylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Methyl tert-butyl ether (MTBE)	31	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Naphthalene	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 1:12:32 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/28/2012 1:12:32 PM
Acetone	ND	10		µg/L	1	3/28/2012 1:12:32 PM
Bromobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Bromodichloromethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Bromoform	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Bromomethane	ND	3.0		µg/L	1	3/28/2012 1:12:32 PM
2-Butanone	ND	10		µg/L	1	3/28/2012 1:12:32 PM
Carbon disulfide	ND	10		µg/L	1	3/28/2012 1:12:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Chlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Chloroethane	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
Chloroform	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Chloromethane	ND	3.0		µg/L	1	3/28/2012 1:12:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
cis-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Dibromomethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling
Lab ID: 1203905-002 **Matrix:** AQUEOUS

Client Sample ID: OW-10
Collection Date: 3/22/2012 4:02:00 PM
Received Date: 3/23/2012 11:07:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
2-Hexanone	ND	10		µg/L	1	3/28/2012 1:12:32 PM
Isopropylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	3/28/2012 1:12:32 PM
Methylene Chloride	ND	3.0		µg/L	1	3/28/2012 1:12:32 PM
n-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
n-Propylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
sec-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Styrene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	3/28/2012 1:12:32 PM
Vinyl chloride	ND	1.0		µg/L	1	3/28/2012 1:12:32 PM
Xylenes, Total	ND	1.5		µg/L	1	3/28/2012 1:12:32 PM
Surr: 1,2-Dichloroethane-d4	83.4	70-130		%REC	1	3/28/2012 1:12:32 PM
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1	3/28/2012 1:12:32 PM
Surr: Dibromofluoromethane	96.6	69.8-130		%REC	1	3/28/2012 1:12:32 PM
Surr: Toluene-d8	81.6	70-130		%REC	1	3/28/2012 1:12:32 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203905**

Hall Environmental Analysis Laboratory, Inc.

19-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203B48-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0.02652	90.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.4	70	130			
Chromium	0.46	0.0060	0.5000	0	91.8	70	130			
Copper	0.47	0.0060	0.5000	0.005490	92.5	70	130			
Iron	0.57	0.020	0.5000	0.1087	92.5	70	130			
Magnesium	59	1.0	50.00	6.395	105	70	130			
Manganese	0.52	0.0020	0.5000	0.07564	88.6	70	130			
Silver	0.096	0.0050	0.1000	0	96.3	70	130			
Sodium	57	1.0	50.00	4.650	105	70	130			
Zinc	0.48	0.010	0.5000	0.01507	92.8	70	130			

Sample ID **1203B48-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54376** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.02652	92.4	70	130	2.01	20	
Cadmium	0.48	0.0020	0.5000	0	96.5	70	130	1.16	20	
Chromium	0.47	0.0060	0.5000	0	93.8	70	130	2.14	20	
Copper	0.48	0.0060	0.5000	0.005490	94.3	70	130	2.00	20	
Iron	0.58	0.020	0.5000	0.1087	94.7	70	130	1.97	20	
Magnesium	57	1.0	50.00	6.395	100	70	130	4.16	20	
Manganese	0.53	0.0020	0.5000	0.07564	90.4	70	130	1.73	20	
Silver	0.098	0.0050	0.1000	0	97.7	70	130	1.47	20	
Sodium	55	1.0	50.00	4.650	100	70	130	4.87	20	
Zinc	0.49	0.010	0.5000	0.01507	95.5	70	130	2.82	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R1953** RunNo: **1953**
Prep Date: Analysis Date: **4/5/2012** SeqNo: **54474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R1953**	RunNo: **1953**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **54474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R1953**	RunNo: **1953**
Prep Date:	Analysis Date: **4/5/2012**	SeqNo: **54475** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	99.3	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	99.5	85	115			
Lead	0.50	0.0050	0.5000	0	99.0	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
anese	0.48	0.0020	0.5000	0	96.1	85	115			
assium	49	1.0	50.00	0	98.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	99.6	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48039** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-1230**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **1230**	RunNo: **1702**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **48040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.51	0.0020	0.5000	0.0004200	101	85	115			
Chromium	0.49	0.0060	0.5000	0.0006400	98.8	85	115			
Copper	0.50	0.0060	0.5000	0.001800	99.1	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.4	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.7	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.4	85	115			

Sample ID **1203798-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.003713	97.1	70	130			

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2111**	RunNo: **2111**
Prep Date:	Analysis Date: **4/12/2012**	SeqNo: **58420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001858	97.3	70	130			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60429** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.024	0.0010	0.02500	0	96.5	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203898-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R2167**	RunNo: **2167**
Prep Date:	Analysis Date: **4/16/2012**	SeqNo: **60436** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0.0007840	97.5	70	130			
Uranium	0.032	0.0010	0.02500	0.007582	97.1	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1230**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**	
Client ID: **PBW**	Batch ID: **1230**	RunNo: **1930**	
Prep Date: **3/26/2012**	Analysis Date: **4/4/2012**	SeqNo: **53748**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1203905**

Hall Environmental Analysis Laboratory, Inc.

19-Apr-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1297**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **PBW**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50512**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-1297**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **LCSW**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50513**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.6	80	120			

Sample ID **1203721-004AMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50515**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.8	75	125			

Sample ID **1203721-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **1297**	RunNo: **1786**							
Prep Date: **3/29/2012**	Analysis Date: **3/29/2012**	SeqNo: **50516**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.8	75	125	0.996	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47441** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47442** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	95.0	90	110			
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	95.4	90	110			
Bromide	2.4	0.10	2.500	0	96.9	90	110			
[illegible]nen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90	110			
[illegible]phorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.0	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1203869-002AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47454** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.10	0.5000	2.674	78.2	72.9	113			
Bromide	2.8	0.10	2.500	0.4144	96.0	76	114			

Sample ID **1203869-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47455** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.10	0.5000	2.674	79.9	72.9	113	0.272	20	
Bromide	2.8	0.10	2.500	0.4144	96.2	76	114	0.199	20	

Sample ID **1203890-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47478** Units: **mg/L**

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

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **1203890-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47478** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.9	0.10	0.5000	1.549	79.6	72.9	113			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.1	77.6	111			
Bromide	2.8	0.10	2.500	0.3093	98.5	76	114			

Sample ID **1203890-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R1676**	RunNo: **1676**
Prep Date:	Analysis Date: **3/23/2012**	SeqNo: **47479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.0	0.10	0.5000	1.549	84.7	72.9	113	1.29	20	
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.5	77.6	111	3.53	20	
Bromide	2.9	0.10	2.500	0.3093	102	76	114	3.02	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **MB-1239**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47729** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	61.3	164			

Sample ID **LCS-1239**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	105	74	157			
Surr: DNOP	0.55		0.5000		110	61.3	164			

Sample ID **LCSD-1239**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **1239**	RunNo: **1689**
Prep Date: **3/26/2012**	Analysis Date: **3/26/2012**	SeqNo: **47731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	10.7	23	
Surr: DNOP	0.57		0.5000		114	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51848** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.3	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51849** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.57	0.050	0.5000	0	113	101	123			
Surr: BFB	19		20.00		94.2	69.3	120			

Sample ID **1203965-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/30/2012**	SeqNo: **51874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.4	0.25	2.500	0.9890	95.4	75.4	121			
Surr: BFB	76		100.0		76.0	69.3	120			

Sample ID **1203965-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R1853**	RunNo: **1853**
Prep Date:	Analysis Date: **3/31/2012**	SeqNo: **51875** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.6	0.25	2.500	0.9890	105	75.4	121	6.57	10.5	
Surr: BFB	99		100.0		99.4	69.3	120	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R1867**	RunNo: **1867**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52225** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	16		20.00		79.6	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R1867**	RunNo: **1867**
Prep Date:	Analysis Date: **4/2/2012**	SeqNo: **52226** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	101	123			
Surr: BFB	23		20.00		116	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49524** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
›n disulfide	ND	10								
‹on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49524** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	7.6		10.00		75.5	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.4	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	69.8	130			
Surr: Toluene-d8	8.8		10.00		87.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49525** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	84.1	126			
Toluene	24	1.0	20.00	0	119	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	83	130			
Trichloroethene (TCE)	21	1.0	20.00	0	103	76.2	119			
Surr: 1,2-Dichloroethane-d4	7.4		10.00		73.7	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.3	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1203905**

19-Apr-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49525** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.2		10.00		92.1	69.8	130			
Surr: Toluene-d8	8.9		10.00		88.8	70	130			

Sample ID **1203905-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49526** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	71.1	135			
Toluene	20	1.0	20.00	0	102	74	121			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	76.3	127			
Trichloroethene (TCE)	19	1.0	20.00	0	96.5	70	130			
Surr: 1,2-Dichloroethane-d4	7.0		10.00		69.7	70	130			S
Surr: 4-Bromofluorobenzene	10		10.00		99.7	70	130			
Surr: Dibromofluoromethane	8.7		10.00		86.9	69.8	130			
Surr: Toluene-d8	7.2		10.00		71.7	70	130			

Sample ID **1203905-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R1764**	RunNo: **1764**
Prep Date:	Analysis Date: **3/28/2012**	SeqNo: **49527** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	71.1	135	5.62	21.9	
Toluene	22	1.0	20.00	0	112	74	121	9.72	18.5	
Chlorobenzene	20	1.0	20.00	0	100	70	130	1.85	17.7	
1,1-Dichloroethene	20	1.0	20.00	0	101	76.3	127	13.1	16.5	
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130	4.69	18.9	
Surr: 1,2-Dichloroethane-d4	7.5		10.00		74.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130	0	0	
Surr: Dibromofluoromethane	8.9		10.00		89.1	69.8	130	0	0	
Surr: Toluene-d8	8.2		10.00		81.7	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1203905

Received by/date: MG 03/23/12

Logged By: Anne Thorne 3/23/2012 11:07:00 AM Anne Thorne

Completed By: Anne Thorne 3/23/2012 Anne Thorne

Reviewed By: 03/26/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☑ No ☐ NA ☐

COIC - ADDED 0.4mL HNO3 FOR ACCEPTABLE pH 03/26/12

11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted? Yes
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain of Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: W... Refining	☑ Standard ☐ Rush
Mailing Address: Rt 3 Box 7 Gallup, NM 87301	Project Name: 1st QTR 2012 Groundwater Sampling
Phone #: 505-722-3833	Project #: Quarterly Sampling
email or Fax#: 505-722-0210	Project Manager: Cheryl Johnson
QA/QC Package: ☑ Standard ☐ Level 4 (Full Validation)	
Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)	Sampler: T. Fleener / S. Ukele On Ice: ☑ Yes ☐ No Sample Temperature: 0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1203905	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)			Air Bubbles (Y or N)
3-22-12	1535	Water	OW-1	Various	Various	-001	X	X	X	X	
↓	1602	↓	OW-10	↓	↓	-002	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
3-23-12	1107		Michelle Garcia	03/23/12	11:07
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 05, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2012 SEMI-ANNUAL-PONDS OrderNo.: 1205B64

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 5/30/2012 for the analyses presented in the following report.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1205B64**
Date Reported: **6/5/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 SEMI-ANNUAL-PONDS
Collection Date: 5/30/2012 7:40:00 AM
Lab ID: 1205B64-001 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	100	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	4106	10		CFU/100ml	10	5/31/2012 3:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-002 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 5/30/2012 7:45:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	340	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	>24196	10		CFU/100ml	10	5/31/2012 3:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Analytical Report
Lab Order **1205B64**
Date Reported: **6/5/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-003 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 5/30/2012 7:55:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	37	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<10	10		CFU/100ml	10	5/31/2012 3:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12A
Project: 2012 SEMI-ANNUAL-PONDS
Collection Date: 5/30/2012 8:00:00 AM
Lab ID: 1205B64-004 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	22	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<10	10		CFU/100ml	10	5/31/2012 3:40:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-005 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 5/30/2012 8:05:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	20	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<10	10		CFU/100ml	10	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 SEMI-ANNUAL-PONDS
Collection Date: 5/30/2012 8:10:00 AM
Lab ID: 1205B64-006 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	15	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<1	1.0		CFU/100ml	1	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-8
Project: 2012 SEMI-ANNUAL-PONDS
Collection Date: 5/30/2012 8:15:00 AM
Lab ID: 1205B64-007 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	4.5	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<1	1.0		CFU/100ml	1	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/30/2012 8:20:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	35	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	10	10		CFU/100ml	10	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-009 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 5/30/2012 8:25:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	59	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<10	10		CFU/100ml	10	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-010 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 5/30/2012 8:30:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	69	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	10	10		CFU/100ml	10	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 SEMI-ANNUAL-PONDS
Collection Date: 5/30/2012 8:40:00 AM
Lab ID: 1205B64-011 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	23	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<1	1.0		CFU/100ml	1	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS
Lab ID: 1205B64-012 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 5/30/2012 8:45:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	18	2.0		mg/L	1	6/5/2012 6:48:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **LBJ**
E. Coli	<1	1.0	H	CFU/100ml	1	5/31/2012 7:35:00 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1205B64**

Hall Environmental Analysis Laboratory, Inc.

05-Jun-12

Client: Western Refining Southwest, Gallup
Project: 2012 SEMI-ANNUAL-PONDS

Sample ID **MB-2171**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2171**	RunNo: **3196**							
Prep Date: **5/31/2012**	Analysis Date: **6/5/2012**	SeqNo: **88470**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-2171**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2171**	RunNo: **3196**							
Prep Date: **5/31/2012**	Analysis Date: **6/5/2012**	SeqNo: **88472**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-2171**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **2171**	RunNo: **3196**							
Prep Date: **5/31/2012**	Analysis Date: **6/5/2012**	SeqNo: **88474**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	190	2.0	198.0	0	97.2	84.6	115.4			

Sample ID **LCSD-2171**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **2171**	RunNo: **3196**							
Prep Date: **5/31/2012**	Analysis Date: **6/5/2012**	SeqNo: **88476**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	190	2.0	198.0	0	96.2	84.6	115.4	1.04	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B64**

05-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI-ANNUAL-PONDS

Sample ID **MB-2162**	SampType: **MBLK**	TestCode: **SM 9223B Fecal Indicator: E. coli MPN**							
Client ID: **PBW**	Batch ID: **2162**	RunNo: **3135**							
Prep Date: **5/30/2012**	Analysis Date: **5/31/2012**	SeqNo: **86647**	Units: **CFU/100ml**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Sample ID **MB-2163**	SampType: **MBLK**	TestCode: **SM 9223B Fecal Indicator: E. coli MPN**							
Client ID: **PBW**	Batch ID: **2163**	RunNo: **3141**							
Prep Date: **5/30/2012**	Analysis Date: **5/31/2012**	SeqNo: **86823**	Units: **CFU/100ml**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Qualifiers:

- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1205B64

Received by/date: JB 05/30/12

Logged By: **Anne Thorne** 5/30/2012 1:00:00 PM — Anne Thorne

Completed By: **Anne Thorne** 5/30/2012 — Anne Thorne

Reviewed By: 05/30/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered?

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 0 (<2 or >12 unless noted)
Adjusted? N/A
Checked by: JB 5/30

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other_____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush_____

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1205364	BOD		E-COLI												Air Bubbles (Y or N)
5/30/2012	0740	H20	EP-2			-001	X		X												
5/30/2012	0745	H20	EP-1			-002	X		X												
5/30/2012	0755	H20	EP-12B			-003	X		X												
5/30/2012	0800	H20	EP-12A			-004	X		X												
5/30/2012	0805	H20	EP-11			-005	X		X												
5/30/2012	0810	H20	EP-7			-006	X		X												
5/30/2012	0815	H20	EP-8			-007	X		X												
5/30/2012	0820	H20	EP-5			-008	X		X												
5/30/2012	0825	H20	EP-4			-009	X		X												
5/30/2012	0830	H20	EP-3			-010	X		X												
5/30/2012	0840	H20	EP-9			-011	X		X												
5/30/2012	0845	H20	EP-6			-012	X		X												

Date	Time	Relinquished by:	Received by:	Date	Time
5/30/12	1300			05/31/12	1310
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Analytical Report
Lab Order **1205B66**
Date Reported: **6/27/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-001 **Matrix:** AQUEOUS

Client Sample ID: EP-2
Collection Date: 5/29/2012 10:45:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	55	2.0	*	mg/L	20	6/5/2012 3:15:06 PM
Chloride	6600	250		mg/L	500	6/5/2012 3:39:55 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	5/30/2012 4:26:21 PM
Bromide	2.6	0.50		mg/L	5	5/30/2012 4:13:56 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	5/30/2012 4:13:56 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 4:13:56 PM
Sulfate	1300	25		mg/L	50	6/5/2012 3:27:30 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.060	0.0020		mg/L	1	6/15/2012 9:22:23 AM
Cadmium	ND	0.0020		mg/L	1	6/15/2012 9:22:23 AM
Calcium	200	10		mg/L	10	6/19/2012 5:40:30 PM
Chromium	ND	0.0060		mg/L	1	6/19/2012 6:33:12 PM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:22:23 AM
Iron	0.46	0.020	*	mg/L	1	6/19/2012 6:33:12 PM
Lead	ND	0.0050		mg/L	1	6/15/2012 9:22:23 AM
Magnesium	73	1.0		mg/L	1	6/15/2012 9:22:23 AM
Manganese	0.15	0.0020	*	mg/L	1	6/15/2012 9:22:23 AM
Potassium	150	10		mg/L	10	6/15/2012 9:25:25 AM
Silver	ND	0.0050		mg/L	1	6/15/2012 9:22:23 AM
Sodium	2900	50		mg/L	50	6/19/2012 4:56:57 PM
Zinc	0.024	0.010		mg/L	1	6/19/2012 6:33:12 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.064	0.0020		mg/L	1	6/14/2012 10:23:54 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 10:23:54 AM
Chromium	ND	0.0060		mg/L	1	6/14/2012 10:23:54 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 8:23:19 AM
Iron	0.99	0.020	*	mg/L	1	6/27/2012 10:03:30 AM
Lead	ND	0.0050		mg/L	1	6/14/2012 10:23:54 AM
Manganese	0.15	0.0020	*	mg/L	1	6/14/2012 10:23:54 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 10:23:54 AM
Zinc	0.032	0.010		mg/L	1	6/14/2012 10:23:54 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.011	0.0050	*	mg/L	5	6/19/2012 5:28:36 PM
Selenium	0.011	0.0050		mg/L	5	6/19/2012 5:28:36 PM
Uranium	ND	0.0050		mg/L	5	6/19/2012 5:28:36 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.011	0.0025	*	mg/L	2.5	6/14/2012 12:59:57 PM
Selenium	0.011	0.0025		mg/L	2.5	6/14/2012 12:59:57 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 12:59:57 PM

Qualifiers:

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E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 10:45:00 AM
Lab ID: 1205B66-001 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:40:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Aniline	110	50		µg/L	1	6/1/2012 12:38:46 AM
Anthracene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 12:38:46 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Carbazole	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Chrysene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 12:38:46 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 12:38:46 AM
2,4-Dimethylphenol	110	50		µg/L	1	6/1/2012 12:38:46 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 12:38:46 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 12:38:46 AM

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 10:45:00 AM
Lab ID: 1205B66-001
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Fluorene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Isophorone	ND	50		µg/L	1	6/1/2012 12:38:46 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Methylphenol	580	50		µg/L	1	6/1/2012 12:38:46 AM
3+4-Methylphenol	810	250		µg/L	5	6/1/2012 8:56:31 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 12:38:46 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 12:38:46 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 12:38:46 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 12:38:46 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 12:38:46 AM
Phenanthrene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Phenol	1700	250		µg/L	5	6/1/2012 8:56:31 AM
Pyrene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Pyridine	ND	50		µg/L	1	6/1/2012 12:38:46 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 12:38:46 AM
Surr: 2,4,6-Tribromophenol	70.5	44.2-126		%REC	1	6/1/2012 12:38:46 AM
Surr: 2-Fluorobiphenyl	55.3	37-114		%REC	1	6/1/2012 12:38:46 AM
Surr: 2-Fluorophenol	42.9	23.4-98		%REC	1	6/1/2012 12:38:46 AM
Surr: 4-Terphenyl-d14	61.0	41.3-116		%REC	1	6/1/2012 12:38:46 AM
Surr: Nitrobenzene-d5	65.0	39.5-118		%REC	1	6/1/2012 12:38:46 AM
Surr: Phenol-d5	32.5	20.9-95.9		%REC	1	6/1/2012 12:38:46 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Toluene	ND	10		µg/L	10	6/2/2012 1:52:59 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 10:45:00 AM
Lab ID: 1205B66-001 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 1:52:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 1:52:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 1:52:59 AM
Acetone	430	100		µg/L	10	6/2/2012 1:52:59 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Bromoform	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 1:52:59 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 1:52:59 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 1:52:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 1:52:59 AM
Chloroform	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 1:52:59 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 1:52:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 1:52:59 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 1:52:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 1:52:59 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 1:52:59 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 10:45:00 AM
Lab ID: 1205B66-001
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 1:52:59 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 1:52:59 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Styrene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 1:52:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 1:52:59 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 1:52:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 1:52:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 1:52:59 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 1:52:59 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 1:52:59 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	10	6/2/2012 1:52:59 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	10	6/2/2012 1:52:59 AM
Surr: Dibromofluoromethane	94.8	69.8-130		%REC	10	6/2/2012 1:52:59 AM
Surr: Toluene-d8	102	70-130		%REC	10	6/2/2012 1:52:59 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	20000	0.50		µmhos/cm	50	5/31/2012 6:13:24 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.60	1.68	H	pH units	1	5/31/2012 10:31:36 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-1
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 11:10:00 AM
Lab ID: 1205B66-002 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	34	2.0	*	mg/L	20	6/5/2012 3:52:20 PM
Chloride	3400	100		mg/L	200	6/5/2012 4:17:10 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	5/30/2012 5:03:34 PM
Bromide	2.0	0.50		mg/L	5	5/30/2012 5:03:34 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	5/30/2012 5:03:34 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 5:03:34 PM
Sulfate	1300	25		mg/L	50	6/5/2012 4:04:45 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.046	0.0020		mg/L	1	6/15/2012 9:40:18 AM
Cadmium	ND	0.0020		mg/L	1	6/15/2012 9:40:18 AM
Calcium	120	10		mg/L	10	6/19/2012 5:43:51 PM
Chromium	ND	0.0060		mg/L	1	6/19/2012 6:36:19 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 6:36:19 PM
Iron	0.76	0.020	*	mg/L	1	6/19/2012 6:36:19 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 6:36:19 PM
Magnesium	51	1.0		mg/L	1	6/15/2012 9:40:18 AM
Manganese	0.15	0.0020	*	mg/L	1	6/15/2012 9:40:18 AM
Potassium	73	1.0		mg/L	1	6/19/2012 6:36:19 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 9:40:18 AM
Sodium	1600	50		mg/L	50	6/19/2012 4:59:55 PM
Zinc	0.074	0.010		mg/L	1	6/19/2012 6:36:19 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.074	0.0020		mg/L	1	6/14/2012 10:30:22 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 10:30:22 AM
Chromium	ND	0.0060		mg/L	1	6/14/2012 10:30:22 AM
Copper	0.014	0.0060		mg/L	1	6/15/2012 8:26:27 AM
Iron	2.3	0.10	*	mg/L	5	6/21/2012 11:45:11 AM
Lead	ND	0.0050		mg/L	1	6/14/2012 10:30:22 AM
Manganese	0.15	0.0020	*	mg/L	1	6/14/2012 10:30:22 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 10:30:22 AM
Zinc	0.17	0.010		mg/L	1	6/14/2012 10:30:22 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0084	0.0050		mg/L	5	6/19/2012 5:30:28 PM
Selenium	0.011	0.0050		mg/L	5	6/19/2012 5:30:28 PM
Uranium	ND	0.0050		mg/L	5	6/19/2012 5:30:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0091	0.0025		mg/L	2.5	6/14/2012 1:01:50 PM
Selenium	0.0098	0.0025		mg/L	2.5	6/14/2012 1:01:50 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:01:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-1
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 11:10:00 AM
Lab ID: 1205B66-002
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00082	0.00020		mg/L	1	6/1/2012 3:42:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Aniline	70	50		µg/L	1	6/1/2012 1:08:07 AM
Anthracene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 1:08:07 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Carbazole	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Chrysene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 1:08:07 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 1:08:07 AM
2,4-Dimethylphenol	70	50		µg/L	1	6/1/2012 1:08:07 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 1:08:07 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 1:08:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-002 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 5/29/2012 11:10:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Fluorene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Isophorone	ND	50		µg/L	1	6/1/2012 1:08:07 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Methylphenol	310	50		µg/L	1	6/1/2012 1:08:07 AM
3+4-Methylphenol	700	50		µg/L	1	6/1/2012 1:08:07 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 1:08:07 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 1:08:07 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 1:08:07 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 1:08:07 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 1:08:07 AM
Phenanthrene	51	50		µg/L	1	6/1/2012 1:08:07 AM
Phenol	1100	100		µg/L	2	6/1/2012 9:25:36 AM
Pyrene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Pyridine	ND	50		µg/L	1	6/1/2012 1:08:07 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 1:08:07 AM
Surr: 2,4,6-Tribromophenol	82.4	44.2-126		%REC	1	6/1/2012 1:08:07 AM
Surr: 2-Fluorobiphenyl	68.6	37-114		%REC	1	6/1/2012 1:08:07 AM
Surr: 2-Fluorophenol	53.3	23.4-98		%REC	1	6/1/2012 1:08:07 AM
Surr: 4-Terphenyl-d14	71.5	41.3-116		%REC	1	6/1/2012 1:08:07 AM
Surr: Nitrobenzene-d5	70.8	39.5-118		%REC	1	6/1/2012 1:08:07 AM
Surr: Phenol-d5	40.8	20.9-95.9		%REC	1	6/1/2012 1:08:07 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Toluene	ND	10		µg/L	10	6/2/2012 2:22:24 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-002 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 5/29/2012 11:10:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 2:22:24 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 2:22:24 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 2:22:24 AM
Acetone	610	100		µg/L	10	6/2/2012 2:22:24 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Bromoform	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 2:22:24 AM
2-Butanone	110	100		µg/L	10	6/2/2012 2:22:24 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 2:22:24 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 2:22:24 AM
Chloroform	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 2:22:24 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 2:22:24 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 2:22:24 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 2:22:24 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 2:22:24 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 2:22:24 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-002 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 5/29/2012 11:10:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 2:22:24 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 2:22:24 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Styrene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 2:22:24 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 2:22:24 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 2:22:24 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 2:22:24 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 2:22:24 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 2:22:24 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 2:22:24 AM
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%REC	10	6/2/2012 2:22:24 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	6/2/2012 2:22:24 AM
Surr: Dibromofluoromethane	88.5	69.8-130		%REC	10	6/2/2012 2:22:24 AM
Surr: Toluene-d8	96.9	70-130		%REC	10	6/2/2012 2:22:24 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	8800	0.010		µmhos/cm	1	5/31/2012 10:35:51 AM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.75	1.68	H	pH units	1	5/31/2012 10:35:51 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-003 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 5/29/2012 11:35:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	19	2.0	*	mg/L	20	6/5/2012 4:29:35 PM
Chloride	7000	250		mg/L	500	6/5/2012 4:54:25 PM
Bromide	3.6	0.50		mg/L	5	5/30/2012 5:53:14 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 5:53:14 PM
Sulfate	1500	25		mg/L	50	6/5/2012 4:42:00 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 12:21:08 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.067	0.0020		mg/L	1	6/15/2012 9:48:46 AM
Cadmium	ND	0.0020		mg/L	1	6/15/2012 9:48:46 AM
Calcium	290	10		mg/L	10	6/19/2012 5:47:06 PM
Chromium	0.0071	0.0060		mg/L	1	6/19/2012 6:39:48 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 6:39:48 PM
Iron	0.18	0.020		mg/L	1	6/19/2012 6:39:48 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 6:39:48 PM
Magnesium	130	10		mg/L	10	6/15/2012 9:51:52 AM
Manganese	0.11	0.0020	*	mg/L	1	6/15/2012 9:48:46 AM
Potassium	190	10		mg/L	10	6/19/2012 5:47:06 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 9:48:46 AM
Sodium	4300	50		mg/L	50	6/19/2012 5:02:58 PM
Zinc	0.015	0.010		mg/L	1	6/19/2012 6:39:48 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.072	0.0020		mg/L	1	6/14/2012 10:38:19 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 10:38:19 AM
Chromium	ND	0.0060		mg/L	1	6/14/2012 10:38:19 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 8:34:21 AM
Iron	0.32	0.10	*	mg/L	5	6/19/2012 7:17:52 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 10:38:19 AM
Manganese	0.12	0.0020	*	mg/L	1	6/14/2012 10:38:19 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 10:38:19 AM
Zinc	ND	0.010		mg/L	1	6/14/2012 10:38:19 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.019	0.010	*	mg/L	10	6/19/2012 5:32:20 PM
Selenium	0.024	0.010		mg/L	10	6/19/2012 5:32:20 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 5:32:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.016	0.0025	*	mg/L	2.5	6/14/2012 1:03:42 PM
Selenium	0.017	0.0025		mg/L	2.5	6/14/2012 1:03:42 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:03:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-003 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 5/29/2012 11:35:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:47:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Acenaphthylene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Aniline	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Anthracene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Azobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benz(a)anthracene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benzo(a)pyrene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benzo(b)fluoranthene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benzo(g,h,i)perylene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benzo(k)fluoranthene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Benzoic acid	ND	200		µg/L	1	6/1/2012 2:58:10 AM
Benzyl alcohol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Bis(2-chloroethoxy)methane	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Bis(2-chloroethyl)ether	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Bis(2-chloroisopropyl)ether	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Bis(2-ethylhexyl)phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Bromophenyl phenyl ether	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Butyl benzyl phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Carbazole	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Chloro-3-methylphenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Chloroaniline	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Chloronaphthalene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Chlorophenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Chlorophenyl phenyl ether	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Chrysene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Di-n-butyl phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Di-n-octyl phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Dibenz(a,h)anthracene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Dibenzofuran	ND	100		µg/L	1	6/1/2012 2:58:10 AM
1,2-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
1,3-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
1,4-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
3,3'-Dichlorobenzidine	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Diethyl phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Dimethyl phthalate	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2,4-Dichlorophenol	ND	200		µg/L	1	6/1/2012 2:58:10 AM
2,4-Dimethylphenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4,6-Dinitro-2-methylphenol	ND	200		µg/L	1	6/1/2012 2:58:10 AM
2,4-Dinitrophenol	ND	200		µg/L	1	6/1/2012 2:58:10 AM

Qualifiers:

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- E Value above quantitation range
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-003 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 5/29/2012 11:35:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2,6-Dinitrotoluene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Fluoranthene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Fluorene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Hexachlorobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Hexachlorobutadiene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Hexachlorocyclopentadiene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Hexachloroethane	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Indeno(1,2,3-cd)pyrene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Isophorone	ND	100		µg/L	1	6/1/2012 2:58:10 AM
1-Methylnaphthalene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Methylnaphthalene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Methylphenol	330	100		µg/L	1	6/1/2012 2:58:10 AM
3+4-Methylphenol	560	100		µg/L	1	6/1/2012 2:58:10 AM
N-Nitrosodi-n-propylamine	ND	100		µg/L	1	6/1/2012 2:58:10 AM
N-Nitrosodimethylamine	ND	100		µg/L	1	6/1/2012 2:58:10 AM
N-Nitrosodiphenylamine	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Naphthalene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Nitroaniline	ND	100		µg/L	1	6/1/2012 2:58:10 AM
3-Nitroaniline	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Nitroaniline	ND	200		µg/L	1	6/1/2012 2:58:10 AM
Nitrobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2-Nitrophenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
4-Nitrophenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Pentachlorophenol	ND	200		µg/L	1	6/1/2012 2:58:10 AM
Phenanthrene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Phenol	1100	100		µg/L	1	6/1/2012 2:58:10 AM
Pyrene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Pyridine	ND	100		µg/L	1	6/1/2012 2:58:10 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2,4,5-Trichlorophenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
2,4,6-Trichlorophenol	ND	100		µg/L	1	6/1/2012 2:58:10 AM
Surr: 2,4,6-Tribromophenol	48.7	44.2-126		%REC	1	6/1/2012 2:58:10 AM
Surr: 2-Fluorobiphenyl	45.2	37-114		%REC	1	6/1/2012 2:58:10 AM
Surr: 2-Fluorophenol	42.5	23.4-98		%REC	1	6/1/2012 2:58:10 AM
Surr: 4-Terphenyl-d14	52.3	41.3-116		%REC	1	6/1/2012 2:58:10 AM
Surr: Nitrobenzene-d5	49.7	39.5-118		%REC	1	6/1/2012 2:58:10 AM
Surr: Phenol-d5	33.3	20.9-95.9		%REC	1	6/1/2012 2:58:10 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Toluene	ND	10		µg/L	10	6/2/2012 2:51:40 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-003 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 5/29/2012 11:35:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 2:51:40 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 2:51:40 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 2:51:40 AM
Acetone	100	100		µg/L	10	6/2/2012 2:51:40 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Bromoform	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 2:51:40 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 2:51:40 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 2:51:40 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 2:51:40 AM
Chloroform	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 2:51:40 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 2:51:40 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 2:51:40 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 2:51:40 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 2:51:40 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 2:51:40 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12B
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 11:35:00 AM
Lab ID: 1205B66-003 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 2:51:40 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 2:51:40 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Styrene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 2:51:40 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 2:51:40 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 2:51:40 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 2:51:40 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 2:51:40 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 2:51:40 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 2:51:40 AM
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	10	6/2/2012 2:51:40 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	6/2/2012 2:51:40 AM
Surr: Dibromofluoromethane	101	69.8-130		%REC	10	6/2/2012 2:51:40 AM
Surr: Toluene-d8	106	70-130		%REC	10	6/2/2012 2:51:40 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	25000	0.50		µmhos/cm	50	5/31/2012 6:17:40 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.75	1.68	H	pH units	1	5/31/2012 10:40:00 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-004 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 5/29/2012 11:55:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	23	2.0	*	mg/L	20	6/5/2012 5:44:03 PM
Chloride	7600	250		mg/L	500	6/5/2012 5:06:49 PM
Bromide	5.0	0.50		mg/L	5	5/30/2012 6:05:39 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 6:05:39 PM
Sulfate	2300	50		mg/L	100	6/5/2012 5:56:28 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 1:10:48 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.075	0.0020		mg/L	1	6/15/2012 9:55:13 AM
Cadmium	ND	0.0020		mg/L	1	6/15/2012 9:55:13 AM
Calcium	310	10		mg/L	10	6/19/2012 5:50:30 PM
Chromium	0.011	0.0060		mg/L	1	6/19/2012 6:42:52 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 6:42:52 PM
Iron	0.16	0.020		mg/L	1	6/19/2012 6:42:52 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 6:42:52 PM
Magnesium	130	10		mg/L	10	6/15/2012 9:58:16 AM
Manganese	0.73	0.0020	*	mg/L	1	6/15/2012 9:55:13 AM
Potassium	240	10		mg/L	10	6/19/2012 5:50:30 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 9:55:13 AM
Sodium	4000	50		mg/L	50	6/19/2012 5:06:12 PM
Zinc	0.080	0.010		mg/L	1	6/19/2012 6:42:52 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.083	0.0020		mg/L	1	6/14/2012 10:54:00 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 10:54:00 AM
Chromium	0.0097	0.0060		mg/L	1	6/14/2012 10:54:00 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 8:37:28 AM
Iron	0.52	0.020	*	mg/L	1	6/19/2012 7:21:16 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 10:54:00 AM
Manganese	0.75	0.0020	*	mg/L	1	6/14/2012 10:54:00 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 10:54:00 AM
Zinc	0.016	0.010		mg/L	1	6/14/2012 10:54:00 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.026	0.010	*	mg/L	10	6/19/2012 5:36:04 PM
Selenium	0.018	0.010		mg/L	10	6/19/2012 5:36:04 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 5:36:04 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.025	0.0025	*	mg/L	2.5	6/14/2012 1:05:34 PM
Selenium	0.017	0.0025		mg/L	2.5	6/14/2012 1:05:34 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:05:34 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-004 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 5/29/2012 11:55:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:49:39 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Aniline	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Anthracene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 3:27:36 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Carbazole	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Chrysene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 3:27:36 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 3:27:36 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 3:27:36 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 3:27:36 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-004 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 5/29/2012 11:55:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Fluorene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Isophorone	ND	50		µg/L	1	6/1/2012 3:27:36 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Methylphenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
3+4-Methylphenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 3:27:36 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 3:27:36 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 3:27:36 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 3:27:36 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 3:27:36 AM
Phenanthrene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Phenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Pyrene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Pyridine	ND	50		µg/L	1	6/1/2012 3:27:36 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 3:27:36 AM
Surr: 2,4,6-Tribromophenol	33.7	44.2-126	S	%REC	1	6/1/2012 3:27:36 AM
Surr: 2-Fluorobiphenyl	67.4	37-114		%REC	1	6/1/2012 3:27:36 AM
Surr: 2-Fluorophenol	32.7	23.4-98		%REC	1	6/1/2012 3:27:36 AM
Surr: 4-Terphenyl-d14	75.6	41.3-116		%REC	1	6/1/2012 3:27:36 AM
Surr: Nitrobenzene-d5	69.7	39.5-118		%REC	1	6/1/2012 3:27:36 AM
Surr: Phenol-d5	35.5	20.9-95.9		%REC	1	6/1/2012 3:27:36 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Toluene	ND	10		µg/L	10	6/2/2012 3:20:54 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12A
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 11:55:00 AM
Lab ID: 1205B66-004 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 3:20:54 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 3:20:54 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 3:20:54 AM
Acetone	ND	100		µg/L	10	6/2/2012 3:20:54 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Bromoform	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 3:20:54 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 3:20:54 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 3:20:54 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 3:20:54 AM
Chloroform	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 3:20:54 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 3:20:54 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 3:20:54 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 3:20:54 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 3:20:54 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 3:20:54 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-004 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 5/29/2012 11:55:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 3:20:54 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 3:20:54 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Styrene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 3:20:54 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 3:20:54 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 3:20:54 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 3:20:54 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 3:20:54 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 3:20:54 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 3:20:54 AM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	10	6/2/2012 3:20:54 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	6/2/2012 3:20:54 AM
Surr: Dibromofluoromethane	96.1	69.8-130		%REC	10	6/2/2012 3:20:54 AM
Surr: Toluene-d8	108	70-130		%REC	10	6/2/2012 3:20:54 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	25000	0.50		µmhos/cm	50	5/31/2012 6:21:55 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.88	1.68	H	pH units	1	5/31/2012 10:44:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-11
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:10:00 PM
Lab ID: 1205B66-005
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	22	2.0	*	mg/L	20	6/5/2012 6:08:52 PM
Chloride	8200	500		mg/L	1000	6/11/2012 5:50:57 PM
Bromide	5.1	0.50		mg/L	5	5/30/2012 6:18:03 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 6:18:03 PM
Sulfate	3700	50		mg/L	100	6/5/2012 6:21:17 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 1:23:12 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.081	0.0020		mg/L	1	6/15/2012 10:01:37 AM
Cadmium	ND	0.0020		mg/L	1	6/15/2012 10:01:37 AM
Calcium	360	10		mg/L	10	6/19/2012 5:53:52 PM
Chromium	0.011	0.0060		mg/L	1	6/19/2012 6:45:55 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 6:45:55 PM
Iron	0.16	0.020		mg/L	1	6/19/2012 6:45:55 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 6:45:55 PM
Magnesium	160	10		mg/L	10	6/15/2012 10:04:41 AM
Manganese	0.78	0.0020	*	mg/L	1	6/15/2012 10:01:37 AM
Potassium	310	10		mg/L	10	6/19/2012 5:53:52 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 10:01:37 AM
Sodium	4800	100		mg/L	100	6/19/2012 4:23:04 PM
Zinc	0.023	0.010		mg/L	1	6/19/2012 6:45:55 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.086	0.0020		mg/L	1	6/14/2012 11:00:28 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:00:28 AM
Chromium	0.0099	0.0060		mg/L	1	6/14/2012 11:00:28 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 8:40:31 AM
Iron	0.48	0.020	*	mg/L	1	6/19/2012 7:24:20 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:00:28 AM
Manganese	0.80	0.0020	*	mg/L	1	6/14/2012 11:00:28 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:00:28 AM
Zinc	0.014	0.010		mg/L	1	6/14/2012 11:00:28 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.030	0.010	*	mg/L	10	6/19/2012 5:37:56 PM
Selenium	0.019	0.010		mg/L	10	6/19/2012 5:37:56 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 5:37:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.028	0.0025	*	mg/L	2.5	6/14/2012 1:07:26 PM
Selenium	0.017	0.0025		mg/L	2.5	6/14/2012 1:07:26 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:07:26 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-11
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:10:00 PM
Lab ID: 1205B66-005 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:51:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Aniline	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Anthracene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 3:56:57 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Carbazole	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Chrysene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 3:56:57 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 3:56:57 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 3:56:57 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 3:56:57 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-11
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:10:00 PM
Lab ID: 1205B66-005
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Fluorene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Isophorone	ND	50		µg/L	1	6/1/2012 3:56:57 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Methylphenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
3+4-Methylphenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 3:56:57 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 3:56:57 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 3:56:57 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 3:56:57 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 3:56:57 AM
Phenanthrene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Phenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Pyrene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Pyridine	ND	50		µg/L	1	6/1/2012 3:56:57 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 3:56:57 AM
Surr: 2,4,6-Tribromophenol	72.6	44.2-126		%REC	1	6/1/2012 3:56:57 AM
Surr: 2-Fluorobiphenyl	73.3	37-114		%REC	1	6/1/2012 3:56:57 AM
Surr: 2-Fluorophenol	60.6	23.4-98		%REC	1	6/1/2012 3:56:57 AM
Surr: 4-Terphenyl-d14	73.7	41.3-116		%REC	1	6/1/2012 3:56:57 AM
Surr: Nitrobenzene-d5	75.7	39.5-118		%REC	1	6/1/2012 3:56:57 AM
Surr: Phenol-d5	43.6	20.9-95.9		%REC	1	6/1/2012 3:56:57 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Toluene	ND	10		µg/L	10	6/2/2012 3:50:08 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-005 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 5/29/2012 12:10:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 3:50:08 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 3:50:08 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 3:50:08 AM
Acetone	ND	100		µg/L	10	6/2/2012 3:50:08 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Bromoform	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 3:50:08 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 3:50:08 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 3:50:08 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 3:50:08 AM
Chloroform	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 3:50:08 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 3:50:08 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 3:50:08 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 3:50:08 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 3:50:08 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 3:50:08 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-11
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:10:00 PM
Lab ID: 1205B66-005
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 3:50:08 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 3:50:08 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Styrene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 3:50:08 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 3:50:08 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 3:50:08 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 3:50:08 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 3:50:08 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 3:50:08 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 3:50:08 AM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	10	6/2/2012 3:50:08 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	10	6/2/2012 3:50:08 AM
Surr: Dibromofluoromethane	98.8	69.8-130		%REC	10	6/2/2012 3:50:08 AM
Surr: Toluene-d8	105	70-130		%REC	10	6/2/2012 3:50:08 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	30000	0.50		µmhos/cm	50	5/31/2012 6:26:10 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.84	1.68	H	pH units	1	5/31/2012 10:48:23 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-006 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 5/29/2012 12:25:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	24	5.0	*	mg/L	50	6/5/2012 6:46:06 PM
Chloride	50000	2500		mg/L	5000	6/11/2012 6:03:21 PM
Bromide	25	5.0		mg/L	50	6/5/2012 6:46:06 PM
Phosphorus, Orthophosphate (As P)	ND	25	H	mg/L	50	6/5/2012 6:46:06 PM
Sulfate	9500	500		mg/L	1000	6/5/2012 7:10:55 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	6/11/2012 6:40:35 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.14	0.020		mg/L	10	6/15/2012 10:11:17 AM
Cadmium	ND	0.020		mg/L	10	6/15/2012 10:11:17 AM
Calcium	1100	20		mg/L	20	6/19/2012 5:30:00 PM
Chromium	ND	0.060		mg/L	10	6/19/2012 5:58:58 PM
Copper	ND	0.060		mg/L	10	6/19/2012 5:58:58 PM
Iron	ND	0.20		mg/L	10	6/19/2012 5:58:58 PM
Lead	ND	0.050		mg/L	10	6/19/2012 5:58:58 PM
Magnesium	980	10		mg/L	10	6/15/2012 10:11:17 AM
Manganese	0.74	0.020	*	mg/L	10	6/15/2012 10:11:17 AM
Potassium	1300	20		mg/L	20	6/19/2012 5:30:00 PM
Silver	ND	0.050		mg/L	10	6/15/2012 10:11:17 AM
Sodium	28000	5000		mg/L	5000	6/21/2012 10:32:23 AM
Zinc	ND	0.10		mg/L	10	6/19/2012 5:58:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.14	0.0020		mg/L	1	6/14/2012 11:07:05 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:07:05 AM
Chromium	0.014	0.0060		mg/L	1	6/14/2012 11:07:05 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 8:55:11 AM
Iron	0.18	0.020		mg/L	1	6/19/2012 7:27:36 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:07:05 AM
Manganese	0.74	0.0020	*	mg/L	1	6/14/2012 11:07:05 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:07:05 AM
Zinc	0.011	0.010		mg/L	1	6/14/2012 11:07:05 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.081	0.020	*	mg/L	20	6/19/2012 5:39:49 PM
Selenium	0.086	0.020	*	mg/L	20	6/19/2012 5:39:49 PM
Uranium	ND	0.020		mg/L	20	6/19/2012 5:39:49 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.078	0.010	*	mg/L	10	6/14/2012 1:22:28 PM
Selenium	0.077	0.010	*	mg/L	10	6/14/2012 1:22:28 PM
Uranium	ND	0.020		mg/L	20	6/15/2012 4:02:20 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:25:00 PM
Lab ID: 1205B66-006 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:53:09 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Acenaphthylene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Aniline	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Anthracene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Azobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benz(a)anthracene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benzo(a)pyrene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Benzoic acid	ND	20		µg/L	1	6/1/2012 4:26:08 AM
Benzyl alcohol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Butyl benzyl phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Carbazole	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Chloroaniline	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Chloronaphthalene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Chlorophenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Chrysene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Di-n-butyl phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Di-n-octyl phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Dibenzofuran	ND	10		µg/L	1	6/1/2012 4:26:08 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Diethyl phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Dimethyl phthalate	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2,4-Dichlorophenol	ND	20		µg/L	1	6/1/2012 4:26:08 AM
2,4-Dimethylphenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/1/2012 4:26:08 AM
2,4-Dinitrophenol	ND	20		µg/L	1	6/1/2012 4:26:08 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:25:00 PM
Lab ID: 1205B66-006 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Fluoranthene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Fluorene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Hexachlorobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Hexachlorobutadiene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Hexachloroethane	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Isophorone	ND	10		µg/L	1	6/1/2012 4:26:08 AM
1-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Methylphenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
3+4-Methylphenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/1/2012 4:26:08 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/1/2012 4:26:08 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Naphthalene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Nitroaniline	ND	10		µg/L	1	6/1/2012 4:26:08 AM
3-Nitroaniline	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Nitroaniline	ND	20		µg/L	1	6/1/2012 4:26:08 AM
Nitrobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2-Nitrophenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
4-Nitrophenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Pentachlorophenol	ND	20		µg/L	1	6/1/2012 4:26:08 AM
Phenanthrene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Phenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Pyrene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Pyridine	ND	10		µg/L	1	6/1/2012 4:26:08 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/1/2012 4:26:08 AM
Surr: 2,4,6-Tribromophenol	50.6	44.2-126		%REC	1	6/1/2012 4:26:08 AM
Surr: 2-Fluorobiphenyl	48.1	37-114		%REC	1	6/1/2012 4:26:08 AM
Surr: 2-Fluorophenol	50.8	23.4-98		%REC	1	6/1/2012 4:26:08 AM
Surr: 4-Terphenyl-d14	40.8	41.3-116	S	%REC	1	6/1/2012 4:26:08 AM
Surr: Nitrobenzene-d5	53.1	39.5-118		%REC	1	6/1/2012 4:26:08 AM
Surr: Phenol-d5	43.5	20.9-95.9		%REC	1	6/1/2012 4:26:08 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Toluene	ND	10		µg/L	10	6/2/2012 4:19:30 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:25:00 PM
Lab ID: 1205B66-006 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 4:19:30 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 4:19:30 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 4:19:30 AM
Acetone	ND	100		µg/L	10	6/2/2012 4:19:30 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Bromoform	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 4:19:30 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 4:19:30 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 4:19:30 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 4:19:30 AM
Chloroform	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 4:19:30 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 4:19:30 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 4:19:30 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 4:19:30 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 4:19:30 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 4:19:30 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-006 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 5/29/2012 12:25:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 4:19:30 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 4:19:30 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Styrene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 4:19:30 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 4:19:30 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 4:19:30 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 4:19:30 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 4:19:30 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 4:19:30 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 4:19:30 AM
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	10	6/2/2012 4:19:30 AM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	10	6/2/2012 4:19:30 AM
Surr: Dibromofluoromethane	98.4	69.8-130		%REC	10	6/2/2012 4:19:30 AM
Surr: Toluene-d8	105	70-130		%REC	10	6/2/2012 4:19:30 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	150000	0.50		µmhos/cm	50	5/31/2012 6:30:17 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.72	1.68	H	pH units	1	5/31/2012 10:52:32 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-8
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:40:00 PM
Lab ID: 1205B66-007
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	33	5.0	*	mg/L	50	6/5/2012 8:12:59 PM
Chloride	67000	2500		mg/L	5000	6/11/2012 6:15:46 PM
Bromide	39	5.0		mg/L	50	6/5/2012 8:12:59 PM
Phosphorus, Orthophosphate (As P)	ND	25	H	mg/L	50	6/5/2012 8:12:59 PM
Sulfate	9700	250		mg/L	500	6/5/2012 8:25:23 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	6/11/2012 6:53:00 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.18	0.020		mg/L	10	6/15/2012 10:30:48 AM
Cadmium	ND	0.020		mg/L	10	6/19/2012 6:02:15 PM
Calcium	730	10		mg/L	10	6/15/2012 10:30:48 AM
Chromium	ND	0.060		mg/L	10	6/19/2012 6:02:15 PM
Copper	ND	0.060		mg/L	10	6/19/2012 6:02:15 PM
Iron	ND	0.20		mg/L	10	6/19/2012 6:02:15 PM
Lead	ND	0.050		mg/L	10	6/19/2012 6:02:15 PM
Magnesium	1500	20		mg/L	20	6/19/2012 5:33:32 PM
Manganese	7.3	0.020	*	mg/L	10	6/15/2012 10:30:48 AM
Potassium	2200	100		mg/L	100	6/19/2012 4:42:31 PM
Silver	ND	0.050		mg/L	10	6/15/2012 10:30:48 AM
Sodium	35000	500		mg/L	500	6/21/2012 10:38:07 AM
Zinc	ND	0.10		mg/L	10	6/19/2012 6:02:15 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.17	0.0020		mg/L	1	6/14/2012 11:15:11 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:15:11 AM
Chromium	0.018	0.0060		mg/L	1	6/14/2012 11:15:11 AM
Copper	0.0071	0.0060		mg/L	1	6/15/2012 8:58:26 AM
Iron	0.50	0.10	*	mg/L	5	6/21/2012 11:48:25 AM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:15:11 AM
Manganese	8.6	0.020	*	mg/L	10	6/15/2012 9:01:51 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:15:11 AM
Zinc	0.025	0.010		mg/L	1	6/14/2012 11:15:11 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.16	0.020	*	mg/L	20	6/19/2012 5:43:35 PM
Selenium	0.13	0.020	*	mg/L	20	6/19/2012 5:43:35 PM
Uranium	ND	0.020		mg/L	20	6/19/2012 5:43:35 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.15	0.010	*	mg/L	10	6/14/2012 1:24:20 PM
Selenium	0.12	0.010	*	mg/L	10	6/14/2012 1:24:20 PM
Uranium	ND	0.020		mg/L	20	6/15/2012 4:06:16 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 5/29/2012 12:40:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 3:58:29 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Acenaphthylene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Aniline	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Anthracene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Azobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benz(a)anthracene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benzo(a)pyrene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Benzoic acid	ND	20		µg/L	1	6/1/2012 4:55:12 AM
Benzyl alcohol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Butyl benzyl phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Carbazole	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Chloroaniline	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Chloronaphthalene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Chlorophenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Chrysene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Di-n-butyl phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Di-n-octyl phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Dibenzofuran	ND	10		µg/L	1	6/1/2012 4:55:12 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Diethyl phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Dimethyl phthalate	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2,4-Dichlorophenol	ND	20		µg/L	1	6/1/2012 4:55:12 AM
2,4-Dimethylphenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/1/2012 4:55:12 AM
2,4-Dinitrophenol	ND	20		µg/L	1	6/1/2012 4:55:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-8
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 12:40:00 PM
Lab ID: 1205B66-007 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Fluoranthene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Fluorene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Hexachlorobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Hexachlorobutadiene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Hexachloroethane	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Isophorone	ND	10		µg/L	1	6/1/2012 4:55:12 AM
1-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Methylphenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
3+4-Methylphenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/1/2012 4:55:12 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/1/2012 4:55:12 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Naphthalene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Nitroaniline	ND	10		µg/L	1	6/1/2012 4:55:12 AM
3-Nitroaniline	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Nitroaniline	ND	20		µg/L	1	6/1/2012 4:55:12 AM
Nitrobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2-Nitrophenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
4-Nitrophenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Pentachlorophenol	ND	20		µg/L	1	6/1/2012 4:55:12 AM
Phenanthrene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Phenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Pyrene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Pyridine	ND	10		µg/L	1	6/1/2012 4:55:12 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/1/2012 4:55:12 AM
Surr: 2,4,6-Tribromophenol	62.8	44.2-126		%REC	1	6/1/2012 4:55:12 AM
Surr: 2-Fluorobiphenyl	70.3	37-114		%REC	1	6/1/2012 4:55:12 AM
Surr: 2-Fluorophenol	63.5	23.4-98		%REC	1	6/1/2012 4:55:12 AM
Surr: 4-Terphenyl-d14	54.0	41.3-116		%REC	1	6/1/2012 4:55:12 AM
Surr: Nitrobenzene-d5	80.5	39.5-118		%REC	1	6/1/2012 4:55:12 AM
Surr: Phenol-d5	59.0	20.9-95.9		%REC	1	6/1/2012 4:55:12 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Toluene	ND	10		µg/L	10	6/2/2012 4:48:45 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 5/29/2012 12:40:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 4:48:45 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 4:48:45 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 4:48:45 AM
Acetone	ND	100		µg/L	10	6/2/2012 4:48:45 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Bromoform	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 4:48:45 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 4:48:45 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 4:48:45 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 4:48:45 AM
Chloroform	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 4:48:45 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 4:48:45 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 4:48:45 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 4:48:45 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 4:48:45 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 4:48:45 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 5/29/2012 12:40:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 4:48:45 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 4:48:45 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Styrene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 4:48:45 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 4:48:45 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 4:48:45 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 4:48:45 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 4:48:45 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 4:48:45 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 4:48:45 AM
Surr: 1,2-Dichloroethane-d4	109	70-130		%REC	10	6/2/2012 4:48:45 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	10	6/2/2012 4:48:45 AM
Surr: Dibromofluoromethane	94.2	69.8-130		%REC	10	6/2/2012 4:48:45 AM
Surr: Toluene-d8	104	70-130		%REC	10	6/2/2012 4:48:45 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	180000	0.50		µmhos/cm	50	5/31/2012 6:34:39 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.53	1.68	H	pH units	1	5/31/2012 11:01:06 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/29/2012 1:00:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	21	2.0	*	mg/L	20	6/5/2012 8:50:12 PM
Chloride	6100	250		mg/L	500	6/5/2012 9:15:01 PM
Bromide	3.2	0.50		mg/L	5	5/30/2012 6:55:17 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 6:55:17 PM
Sulfate	1300	25		mg/L	50	6/5/2012 9:02:36 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 2:00:26 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.059	0.0020		mg/L	1	6/15/2012 10:34:02 AM
Cadmium	ND	0.0020		mg/L	1	6/19/2012 7:00:33 PM
Calcium	240	10		mg/L	10	6/15/2012 10:37:07 AM
Chromium	0.0069	0.0060		mg/L	1	6/19/2012 7:00:33 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 7:00:33 PM
Iron	0.19	0.020		mg/L	1	6/19/2012 7:00:33 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 7:00:33 PM
Magnesium	120	10		mg/L	10	6/15/2012 10:37:07 AM
Manganese	0.065	0.0020	*	mg/L	1	6/15/2012 10:34:02 AM
Potassium	170	10		mg/L	10	6/19/2012 6:14:42 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 10:34:02 AM
Sodium	3600	50		mg/L	50	6/19/2012 5:09:30 PM
Zinc	0.023	0.010		mg/L	1	6/19/2012 7:00:33 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.064	0.0020		mg/L	1	6/14/2012 11:22:01 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:22:01 AM
Chromium	ND	0.0060		mg/L	1	6/14/2012 11:22:01 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:05:05 AM
Iron	0.28	0.020		mg/L	1	6/19/2012 7:47:20 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:22:01 AM
Manganese	0.070	0.0020	*	mg/L	1	6/14/2012 11:22:01 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:22:01 AM
Zinc	ND	0.010		mg/L	1	6/14/2012 11:22:01 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.017	0.010	*	mg/L	10	6/19/2012 5:51:07 PM
Selenium	0.023	0.010		mg/L	10	6/19/2012 5:51:07 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 5:51:07 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.015	0.0025	*	mg/L	2.5	6/14/2012 1:09:18 PM
Selenium	0.018	0.0025		mg/L	2.5	6/14/2012 1:09:18 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:09:18 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/29/2012 1:00:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 4:00:17 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Aniline	57	50		µg/L	1	6/1/2012 5:24:20 AM
Anthracene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 5:24:20 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Carbazole	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Chrysene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 5:24:20 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 5:24:20 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 5:24:20 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 5:24:20 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/29/2012 1:00:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Fluorene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Isophorone	ND	50		µg/L	1	6/1/2012 5:24:20 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Methylphenol	820	50		µg/L	1	6/1/2012 5:24:20 AM
3+4-Methylphenol	1100	250		µg/L	5	6/1/2012 9:54:52 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 5:24:20 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 5:24:20 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 5:24:20 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 5:24:20 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 5:24:20 AM
Phenanthrene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Phenol	2700	250		µg/L	5	6/1/2012 9:54:52 AM
Pyrene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Pyridine	ND	50		µg/L	1	6/1/2012 5:24:20 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 5:24:20 AM
Surr: 2,4,6-Tribromophenol	89.7	44.2-126		%REC	1	6/1/2012 5:24:20 AM
Surr: 2-Fluorobiphenyl	74.3	37-114		%REC	1	6/1/2012 5:24:20 AM
Surr: 2-Fluorophenol	61.2	23.4-98		%REC	1	6/1/2012 5:24:20 AM
Surr: 4-Terphenyl-d14	85.2	41.3-116		%REC	1	6/1/2012 5:24:20 AM
Surr: Nitrobenzene-d5	79.7	39.5-118		%REC	1	6/1/2012 5:24:20 AM
Surr: Phenol-d5	53.5	20.9-95.9		%REC	1	6/1/2012 5:24:20 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Toluene	ND	10		µg/L	10	6/2/2012 5:17:57 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/29/2012 1:00:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 5:17:57 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 5:17:57 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 5:17:57 AM
Acetone	ND	100		µg/L	10	6/2/2012 5:17:57 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Bromoform	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 5:17:57 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 5:17:57 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 5:17:57 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 5:17:57 AM
Chloroform	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 5:17:57 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 5:17:57 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 5:17:57 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 5:17:57 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 5:17:57 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 5:17:57 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-008 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 5/29/2012 1:00:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 5:17:57 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 5:17:57 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Styrene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 5:17:57 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 5:17:57 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 5:17:57 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 5:17:57 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 5:17:57 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 5:17:57 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 5:17:57 AM
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	10	6/2/2012 5:17:57 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	10	6/2/2012 5:17:57 AM
Surr: Dibromofluoromethane	98.2	69.8-130		%REC	10	6/2/2012 5:17:57 AM
Surr: Toluene-d8	107	70-130		%REC	10	6/2/2012 5:17:57 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	22000	0.50		µmhos/cm	50	5/31/2012 6:38:46 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.84	1.68	H	pH units	1	5/31/2012 11:05:14 AM

Qualifiers:

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R	RPD outside accepted recovery limits
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B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-4
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:15:00 PM
Lab ID: 1205B66-009 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	20	2.0	*	mg/L	20	6/5/2012 9:27:26 PM
Chloride	6500	250		mg/L	500	6/5/2012 9:52:15 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	5/30/2012 5:40:49 PM
Bromide	3.3	0.50		mg/L	5	5/30/2012 5:28:24 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	5/30/2012 5:28:24 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 5:28:24 PM
Sulfate	1400	25		mg/L	50	6/5/2012 9:39:51 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.060	0.0020		mg/L	1	6/15/2012 10:40:29 AM
Cadmium	ND	0.0020		mg/L	1	6/19/2012 7:03:40 PM
Calcium	230	10		mg/L	10	6/15/2012 10:43:34 AM
Chromium	0.0067	0.0060		mg/L	1	6/19/2012 7:03:40 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 7:03:40 PM
Iron	0.20	0.020		mg/L	1	6/19/2012 7:03:40 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 7:03:40 PM
Magnesium	110	10		mg/L	10	6/15/2012 10:43:34 AM
Manganese	0.061	0.0020	*	mg/L	1	6/15/2012 10:40:29 AM
Potassium	170	10		mg/L	10	6/19/2012 6:18:08 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 10:40:29 AM
Sodium	3600	50		mg/L	50	6/19/2012 5:12:37 PM
Zinc	0.036	0.010		mg/L	1	6/19/2012 7:03:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.064	0.0020		mg/L	1	6/14/2012 11:40:07 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:40:07 AM
Chromium	0.0060	0.0060		mg/L	1	6/14/2012 11:40:07 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:09:49 AM
Iron	0.28	0.020		mg/L	1	6/19/2012 7:50:26 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:40:07 AM
Manganese	0.064	0.0020	*	mg/L	1	6/14/2012 11:40:07 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:40:07 AM
Zinc	ND	0.010		mg/L	1	6/14/2012 11:40:07 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.017	0.0050	*	mg/L	5	6/19/2012 5:52:59 PM
Selenium	0.024	0.0050		mg/L	5	6/19/2012 5:52:59 PM
Uranium	ND	0.0050		mg/L	5	6/19/2012 5:52:59 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.015	0.0025	*	mg/L	2.5	6/14/2012 1:11:10 PM
Selenium	0.018	0.0025		mg/L	2.5	6/14/2012 1:11:10 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:11:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-009 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 5/29/2012 1:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 4:02:04 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Acenaphthylene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Aniline	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Anthracene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Azobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benz(a)anthracene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Benzoic acid	ND	100		µg/L	1	6/1/2012 5:53:31 AM
Benzyl alcohol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Carbazole	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Chloroaniline	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Chlorophenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Chrysene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Dibenzofuran	ND	50		µg/L	1	6/1/2012 5:53:31 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Diethyl phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Dimethyl phthalate	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/1/2012 5:53:31 AM
2,4-Dimethylphenol	110	50		µg/L	1	6/1/2012 5:53:31 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/1/2012 5:53:31 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/1/2012 5:53:31 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-4
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:15:00 PM
Lab ID: 1205B66-009 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Fluoranthene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Fluorene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Hexachlorobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Hexachloroethane	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Isophorone	ND	50		µg/L	1	6/1/2012 5:53:31 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Methylphenol	780	50		µg/L	1	6/1/2012 5:53:31 AM
3+4-Methylphenol	1200	250		µg/L	5	6/1/2012 10:24:26 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/1/2012 5:53:31 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/1/2012 5:53:31 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Naphthalene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Nitroaniline	ND	50		µg/L	1	6/1/2012 5:53:31 AM
3-Nitroaniline	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 5:53:31 AM
Nitrobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2-Nitrophenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
4-Nitrophenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 5:53:31 AM
Phenanthrene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Phenol	2900	250		µg/L	5	6/1/2012 10:24:26 AM
Pyrene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Pyridine	ND	50		µg/L	1	6/1/2012 5:53:31 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/1/2012 5:53:31 AM
Surr: 2,4,6-Tribromophenol	81.5	44.2-126		%REC	1	6/1/2012 5:53:31 AM
Surr: 2-Fluorobiphenyl	69.7	37-114		%REC	1	6/1/2012 5:53:31 AM
Surr: 2-Fluorophenol	56.4	23.4-98		%REC	1	6/1/2012 5:53:31 AM
Surr: 4-Terphenyl-d14	72.5	41.3-116		%REC	1	6/1/2012 5:53:31 AM
Surr: Nitrobenzene-d5	71.7	39.5-118		%REC	1	6/1/2012 5:53:31 AM
Surr: Phenol-d5	50.3	20.9-95.9		%REC	1	6/1/2012 5:53:31 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Toluene	ND	10		µg/L	10	6/2/2012 5:47:25 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-009 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 5/29/2012 1:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 5:47:25 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 5:47:25 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 5:47:25 AM
Acetone	ND	100		µg/L	10	6/2/2012 5:47:25 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Bromoform	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 5:47:25 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 5:47:25 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 5:47:25 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 5:47:25 AM
Chloroform	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 5:47:25 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 5:47:25 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 5:47:25 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 5:47:25 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 5:47:25 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 5:47:25 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-009 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 5/29/2012 1:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 5:47:25 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 5:47:25 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Styrene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 5:47:25 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 5:47:25 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 5:47:25 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 5:47:25 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 5:47:25 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 5:47:25 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 5:47:25 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	10	6/2/2012 5:47:25 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	10	6/2/2012 5:47:25 AM
Surr: Dibromofluoromethane	94.0	69.8-130		%REC	10	6/2/2012 5:47:25 AM
Surr: Toluene-d8	105	70-130		%REC	10	6/2/2012 5:47:25 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	22000	0.50		µmhos/cm	50	5/31/2012 6:42:52 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.87	1.68	H	pH units	1	5/31/2012 11:09:20 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-3
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:30:00 PM
Lab ID: 1205B66-010 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	22	2.0	*	mg/L	20	6/5/2012 10:41:53 PM
Chloride	9500	250		mg/L	500	6/5/2012 10:04:40 PM
Bromide	2.4	0.50		mg/L	5	5/30/2012 7:32:30 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 7:32:30 PM
Sulfate	1400	25		mg/L	50	6/5/2012 10:54:18 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 2:12:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.076	0.0020		mg/L	1	6/15/2012 10:46:55 AM
Cadmium	ND	0.0020		mg/L	1	6/19/2012 7:08:25 PM
Calcium	410	10		mg/L	10	6/15/2012 10:49:58 AM
Chromium	ND	0.0060		mg/L	1	6/19/2012 7:08:25 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 7:08:25 PM
Iron	0.22	0.020		mg/L	1	6/19/2012 7:08:25 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 7:08:25 PM
Magnesium	140	10		mg/L	10	6/15/2012 10:49:58 AM
Manganese	0.10	0.0020	*	mg/L	1	6/15/2012 10:46:55 AM
Potassium	190	10		mg/L	10	6/19/2012 6:21:29 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 10:46:55 AM
Sodium	4700	100		mg/L	100	6/19/2012 4:45:55 PM
Zinc	0.033	0.010		mg/L	1	6/19/2012 7:08:25 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.081	0.0020		mg/L	1	6/14/2012 11:48:16 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:48:16 AM
Chromium	ND	0.0060		mg/L	1	6/14/2012 11:48:16 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:12:55 AM
Iron	0.39	0.020	*	mg/L	1	6/19/2012 7:53:30 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:48:16 AM
Manganese	0.11	0.0020	*	mg/L	1	6/14/2012 11:48:16 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:48:16 AM
Zinc	ND	0.010		mg/L	1	6/14/2012 11:48:16 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.014	0.010	*	mg/L	10	6/19/2012 5:56:45 PM
Selenium	0.022	0.010		mg/L	10	6/19/2012 5:56:45 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 5:56:45 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.013	0.0025	*	mg/L	2.5	6/14/2012 1:13:02 PM
Selenium	0.013	0.0025		mg/L	2.5	6/14/2012 1:13:02 PM
Uranium	ND	0.0050		mg/L	5	6/15/2012 4:10:12 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-3
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:30:00 PM
Lab ID: 1205B66-010 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 4:03:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Acenaphthylene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Aniline	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Anthracene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Azobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benz(a)anthracene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benzo(a)pyrene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benzo(b)fluoranthene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benzo(g,h,i)perylene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benzo(k)fluoranthene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Benzoic acid	ND	200		µg/L	1	6/1/2012 6:22:36 AM
Benzyl alcohol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Bis(2-chloroethoxy)methane	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Bis(2-chloroethyl)ether	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Bis(2-chloroisopropyl)ether	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Bis(2-ethylhexyl)phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Bromophenyl phenyl ether	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Butyl benzyl phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Carbazole	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Chloro-3-methylphenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Chloroaniline	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2-Chloronaphthalene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2-Chlorophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Chlorophenyl phenyl ether	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Chrysene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Di-n-butyl phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Di-n-octyl phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Dibenz(a,h)anthracene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Dibenzofuran	ND	100		µg/L	1	6/1/2012 6:22:36 AM
1,2-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
1,3-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
1,4-Dichlorobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
3,3'-Dichlorobenzidine	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Diethyl phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Dimethyl phthalate	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2,4-Dichlorophenol	ND	200		µg/L	1	6/1/2012 6:22:36 AM
2,4-Dimethylphenol	130	100		µg/L	1	6/1/2012 6:22:36 AM
4,6-Dinitro-2-methylphenol	ND	200		µg/L	1	6/1/2012 6:22:36 AM
2,4-Dinitrophenol	ND	200		µg/L	1	6/1/2012 6:22:36 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-010
Matrix: AQUEOUS
Client Sample ID: EP-3
Collection Date: 5/29/2012 1:30:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2,6-Dinitrotoluene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Fluoranthene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Fluorene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Hexachlorobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Hexachlorobutadiene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Hexachlorocyclopentadiene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Hexachloroethane	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Indeno(1,2,3-cd)pyrene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Isophorone	ND	100		µg/L	1	6/1/2012 6:22:36 AM
1-Methylnaphthalene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2-Methylnaphthalene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2-Methylphenol	870	100		µg/L	1	6/1/2012 6:22:36 AM
3+4-Methylphenol	1600	100		µg/L	1	6/1/2012 6:22:36 AM
N-Nitrosodi-n-propylamine	ND	100		µg/L	1	6/1/2012 6:22:36 AM
N-Nitrosodimethylamine	ND	100		µg/L	1	6/1/2012 6:22:36 AM
N-Nitrosodiphenylamine	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Naphthalene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2-Nitroaniline	ND	100		µg/L	1	6/1/2012 6:22:36 AM
3-Nitroaniline	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Nitroaniline	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Nitrobenzene	ND	200		µg/L	1	6/1/2012 6:22:36 AM
2-Nitrophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
4-Nitrophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Pentachlorophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Phenanthrene	ND	200		µg/L	1	6/1/2012 6:22:36 AM
Phenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Pyrene	3300	200		µg/L	2	6/1/2012 10:54:09 AM
Pyridine	ND	100		µg/L	1	6/1/2012 6:22:36 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2,4,5-Trichlorophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
2,4,6-Trichlorophenol	ND	100		µg/L	1	6/1/2012 6:22:36 AM
Surr: 2,4,6-Tribromophenol	93.4	44.2-126		%REC	1	6/1/2012 6:22:36 AM
Surr: 2-Fluorobiphenyl	89.5	37-114		%REC	1	6/1/2012 6:22:36 AM
Surr: 2-Fluorophenol	69.8	23.4-98		%REC	1	6/1/2012 6:22:36 AM
Surr: 4-Terphenyl-d14	97.5	41.3-116		%REC	1	6/1/2012 6:22:36 AM
Surr: Nitrobenzene-d5	97.6	39.5-118		%REC	1	6/1/2012 6:22:36 AM
Surr: Phenol-d5	57.5	20.9-95.9		%REC	1	6/1/2012 6:22:36 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Toluene	ND	10		µg/L	10	6/2/2012 6:16:40 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-3
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:30:00 PM
Lab ID: 1205B66-010 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 6:16:40 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 6:16:40 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 6:16:40 AM
Acetone	210	100		µg/L	10	6/2/2012 6:16:40 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Bromoform	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 6:16:40 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 6:16:40 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 6:16:40 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 6:16:40 AM
Chloroform	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 6:16:40 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 6:16:40 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 6:16:40 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 6:16:40 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 6:16:40 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 6:16:40 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-010 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 5/29/2012 1:30:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 6:16:40 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 6:16:40 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Styrene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 6:16:40 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 6:16:40 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 6:16:40 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 6:16:40 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 6:16:40 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 6:16:40 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 6:16:40 AM
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	10	6/2/2012 6:16:40 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	6/2/2012 6:16:40 AM
Surr: Dibromofluoromethane	93.8	69.8-130		%REC	10	6/2/2012 6:16:40 AM
Surr: Toluene-d8	106	70-130		%REC	10	6/2/2012 6:16:40 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	27000	0.50		µmhos/cm	50	5/31/2012 6:46:57 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.68	1.68	H	pH units	1	5/31/2012 11:13:25 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:55:00 PM
Lab ID: 1205B66-011
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	21	5.0	*	mg/L	50	6/5/2012 11:06:43 PM
Chloride	63000	2500		mg/L	5000	6/11/2012 6:28:11 PM
Bromide	24	5.0		mg/L	50	6/5/2012 11:06:43 PM
Phosphorus, Orthophosphate (As P)	ND	25	H	mg/L	50	6/5/2012 11:06:43 PM
Sulfate	7500	250		mg/L	500	6/5/2012 11:19:07 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	6/11/2012 7:05:25 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.18	0.020		mg/L	10	6/15/2012 10:58:16 AM
Cadmium	ND	0.020		mg/L	10	6/19/2012 6:24:51 PM
Calcium	1100	20		mg/L	20	6/19/2012 5:37:02 PM
Chromium	ND	0.060		mg/L	10	6/19/2012 6:24:51 PM
Copper	ND	0.060		mg/L	10	6/19/2012 6:24:51 PM
Iron	ND	0.20		mg/L	10	6/19/2012 6:24:51 PM
Lead	ND	0.050		mg/L	10	6/19/2012 6:24:51 PM
Magnesium	930	10		mg/L	10	6/15/2012 10:58:16 AM
Manganese	4.8	0.020	*	mg/L	10	6/15/2012 10:58:16 AM
Potassium	1100	20		mg/L	20	6/19/2012 5:37:02 PM
Silver	ND	0.050		mg/L	10	6/15/2012 10:58:16 AM
Sodium	30000	500		mg/L	500	6/21/2012 10:41:18 AM
Zinc	ND	0.10		mg/L	10	6/19/2012 6:24:51 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.17	0.0020		mg/L	1	6/14/2012 11:54:53 AM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 11:54:53 AM
Chromium	0.0096	0.0060		mg/L	1	6/14/2012 11:54:53 AM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:15:59 AM
Iron	0.11	0.020		mg/L	1	6/19/2012 7:56:43 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 11:54:53 AM
Manganese	4.7	0.010	*	mg/L	5	6/14/2012 11:58:12 AM
Silver	ND	0.0050		mg/L	1	6/14/2012 11:54:53 AM
Zinc	0.014	0.010		mg/L	1	6/14/2012 11:54:53 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.086	0.020	*	mg/L	20	6/19/2012 5:58:37 PM
Selenium	0.084	0.020	*	mg/L	20	6/19/2012 5:58:37 PM
Uranium	ND	0.020		mg/L	20	6/19/2012 5:58:37 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.081	0.010	*	mg/L	10	6/14/2012 1:26:12 PM
Selenium	0.074	0.010	*	mg/L	10	6/14/2012 1:26:12 PM
Uranium	ND	0.020		mg/L	20	6/15/2012 4:14:08 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-011 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 5/29/2012 1:55:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 4:09:10 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Acenaphthylene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Aniline	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Anthracene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Azobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benz(a)anthracene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benzo(a)pyrene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Benzoic acid	ND	20		µg/L	1	6/1/2012 6:51:41 AM
Benzyl alcohol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Butyl benzyl phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Carbazole	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Chloroaniline	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Chloronaphthalene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Chlorophenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Chrysene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Di-n-butyl phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Di-n-octyl phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Dibenzofuran	ND	10		µg/L	1	6/1/2012 6:51:41 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
3,3´-Dichlorobenzidine	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Diethyl phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Dimethyl phthalate	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2,4-Dichlorophenol	ND	20		µg/L	1	6/1/2012 6:51:41 AM
2,4-Dimethylphenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/1/2012 6:51:41 AM
2,4-Dinitrophenol	ND	20		µg/L	1	6/1/2012 6:51:41 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-011 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 5/29/2012 1:55:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Fluoranthene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Fluorene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Hexachlorobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Hexachlorobutadiene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Hexachloroethane	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Isophorone	ND	10		µg/L	1	6/1/2012 6:51:41 AM
1-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Methylphenol	70	10		µg/L	1	6/1/2012 6:51:41 AM
3+4-Methylphenol	120	10		µg/L	1	6/1/2012 6:51:41 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/1/2012 6:51:41 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/1/2012 6:51:41 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Naphthalene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Nitroaniline	ND	10		µg/L	1	6/1/2012 6:51:41 AM
3-Nitroaniline	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Nitroaniline	ND	20		µg/L	1	6/1/2012 6:51:41 AM
Nitrobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2-Nitrophenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
4-Nitrophenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Pentachlorophenol	ND	20		µg/L	1	6/1/2012 6:51:41 AM
Phenanthrene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Phenol	230	20		µg/L	2	6/1/2012 11:24:02 AM
Pyrene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Pyridine	ND	10		µg/L	1	6/1/2012 6:51:41 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/1/2012 6:51:41 AM
Surr: 2,4,6-Tribromophenol	68.9	44.2-126		%REC	1	6/1/2012 6:51:41 AM
Surr: 2-Fluorobiphenyl	74.8	37-114		%REC	1	6/1/2012 6:51:41 AM
Surr: 2-Fluorophenol	55.7	23.4-98		%REC	1	6/1/2012 6:51:41 AM
Surr: 4-Terphenyl-d14	55.0	41.3-116		%REC	1	6/1/2012 6:51:41 AM
Surr: Nitrobenzene-d5	76.2	39.5-118		%REC	1	6/1/2012 6:51:41 AM
Surr: Phenol-d5	59.7	20.9-95.9		%REC	1	6/1/2012 6:51:41 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Toluene	ND	10		µg/L	10	6/2/2012 6:45:50 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-011 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 5/29/2012 1:55:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Naphthalene	ND	20		µg/L	10	6/2/2012 6:45:50 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 6:45:50 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/2/2012 6:45:50 AM
Acetone	ND	100		µg/L	10	6/2/2012 6:45:50 AM
Bromobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Bromodichloromethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Bromoform	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Bromomethane	ND	30		µg/L	10	6/2/2012 6:45:50 AM
2-Butanone	ND	100		µg/L	10	6/2/2012 6:45:50 AM
Carbon disulfide	ND	100		µg/L	10	6/2/2012 6:45:50 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Chlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Chloroethane	ND	20		µg/L	10	6/2/2012 6:45:50 AM
Chloroform	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Chloromethane	ND	30		µg/L	10	6/2/2012 6:45:50 AM
2-Chlorotoluene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
4-Chlorotoluene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
cis-1,2-DCE	ND	10		µg/L	10	6/2/2012 6:45:50 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/2/2012 6:45:50 AM
Dibromochloromethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Dibromomethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/2/2012 6:45:50 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
2-Hexanone	ND	100		µg/L	10	6/2/2012 6:45:50 AM
Isopropylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/2/2012 6:45:50 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 1:55:00 PM
Lab ID: 1205B66-011 **Matrix:** AQUEOUS **Received Date:** 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	100		µg/L	10	6/2/2012 6:45:50 AM
Methylene Chloride	ND	30		µg/L	10	6/2/2012 6:45:50 AM
n-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
n-Propylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
sec-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Styrene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
tert-Butylbenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/2/2012 6:45:50 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/2/2012 6:45:50 AM
trans-1,2-DCE	ND	10		µg/L	10	6/2/2012 6:45:50 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/2/2012 6:45:50 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/2/2012 6:45:50 AM
Vinyl chloride	ND	10		µg/L	10	6/2/2012 6:45:50 AM
Xylenes, Total	ND	15		µg/L	10	6/2/2012 6:45:50 AM
Surr: 1,2-Dichloroethane-d4	99.8	70-130		%REC	10	6/2/2012 6:45:50 AM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	10	6/2/2012 6:45:50 AM
Surr: Dibromofluoromethane	89.0	69.8-130		%REC	10	6/2/2012 6:45:50 AM
Surr: Toluene-d8	104	70-130		%REC	10	6/2/2012 6:45:50 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	160000	0.50		µmhos/cm	50	5/31/2012 6:51:08 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.57	1.68	H	pH units	1	5/31/2012 11:17:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-012 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 5/29/2012 2:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	20	2.0	*	mg/L	20	6/5/2012 7:23:19 PM
Chloride	8800	250		mg/L	500	6/5/2012 7:35:44 PM
Bromide	3.3	0.50		mg/L	5	5/30/2012 7:57:20 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	5/30/2012 7:57:20 PM
Sulfate	2100	250		mg/L	500	6/5/2012 7:35:44 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/6/2012 2:37:41 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.094	0.0020		mg/L	1	6/15/2012 11:13:01 AM
Cadmium	ND	0.0020		mg/L	1	6/19/2012 7:11:38 PM
Calcium	340	10		mg/L	10	6/19/2012 6:28:10 PM
Chromium	0.011	0.0060		mg/L	1	6/19/2012 7:11:38 PM
Copper	ND	0.0060		mg/L	1	6/19/2012 7:11:38 PM
Iron	0.11	0.020		mg/L	1	6/19/2012 7:11:38 PM
Lead	ND	0.0050		mg/L	1	6/19/2012 7:11:38 PM
Magnesium	150	10		mg/L	10	6/15/2012 11:16:49 AM
Manganese	0.41	0.0020	*	mg/L	1	6/15/2012 11:13:01 AM
Potassium	270	10		mg/L	10	6/19/2012 6:28:10 PM
Silver	ND	0.0050		mg/L	1	6/15/2012 11:13:01 AM
Sodium	4400	100		mg/L	100	6/19/2012 4:53:55 PM
Zinc	0.019	0.010		mg/L	1	6/19/2012 7:11:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.10	0.0020		mg/L	1	6/14/2012 12:01:23 PM
Cadmium	ND	0.0020		mg/L	1	6/14/2012 12:01:23 PM
Chromium	0.0093	0.0060		mg/L	1	6/14/2012 12:01:23 PM
Copper	ND	0.0060		mg/L	1	6/15/2012 9:19:17 AM
Iron	0.28	0.020		mg/L	1	6/19/2012 7:59:56 PM
Lead	ND	0.0050		mg/L	1	6/14/2012 12:01:23 PM
Manganese	0.42	0.0020	*	mg/L	1	6/14/2012 12:01:23 PM
Silver	ND	0.0050		mg/L	1	6/14/2012 12:01:23 PM
Zinc	0.013	0.010		mg/L	1	6/14/2012 12:01:23 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.020	0.010	*	mg/L	10	6/19/2012 6:00:29 PM
Selenium	0.017	0.010		mg/L	10	6/19/2012 6:00:29 PM
Uranium	ND	0.010		mg/L	10	6/19/2012 6:00:29 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.017	0.0025	*	mg/L	2.5	6/14/2012 1:14:54 PM
Selenium	0.016	0.0025		mg/L	2.5	6/14/2012 1:14:54 PM
Uranium	ND	0.0025		mg/L	2.5	6/14/2012 1:14:54 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-6
Project: 2012 SEMI ANNUAL PONDS
Collection Date: 5/29/2012 2:15:00 PM
Lab ID: 1205B66-012
Matrix: AQUEOUS
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	6/1/2012 4:10:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Acenaphthylene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Aniline	36	10		µg/L	1	6/1/2012 7:20:45 AM
Anthracene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Azobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benz(a)anthracene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benzo(a)pyrene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Benzoic acid	ND	20		µg/L	1	6/1/2012 7:20:45 AM
Benzyl alcohol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Butyl benzyl phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Carbazole	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Chloroaniline	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Chloronaphthalene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Chlorophenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Chrysene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Di-n-butyl phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Di-n-octyl phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Dibenzofuran	ND	10		µg/L	1	6/1/2012 7:20:45 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Diethyl phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Dimethyl phthalate	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2,4-Dichlorophenol	ND	20		µg/L	1	6/1/2012 7:20:45 AM
2,4-Dimethylphenol	34	10		µg/L	1	6/1/2012 7:20:45 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/1/2012 7:20:45 AM
2,4-Dinitrophenol	ND	20		µg/L	1	6/1/2012 7:20:45 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-012 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 5/29/2012 2:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Fluoranthene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Fluorene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Hexachlorobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Hexachlorobutadiene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Hexachloroethane	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Isophorone	ND	10		µg/L	1	6/1/2012 7:20:45 AM
1-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Methylnaphthalene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Methylphenol	430	100		µg/L	10	6/1/2012 11:53:54 AM
3+4-Methylphenol	410	100		µg/L	10	6/1/2012 11:53:54 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/1/2012 7:20:45 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/1/2012 7:20:45 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Naphthalene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Nitroaniline	ND	10		µg/L	1	6/1/2012 7:20:45 AM
3-Nitroaniline	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Nitroaniline	ND	20		µg/L	1	6/1/2012 7:20:45 AM
Nitrobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2-Nitrophenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
4-Nitrophenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Pentachlorophenol	ND	20		µg/L	1	6/1/2012 7:20:45 AM
Phenanthrene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Phenol	720	100		µg/L	10	6/1/2012 11:53:54 AM
Pyrene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Pyridine	ND	10		µg/L	1	6/1/2012 7:20:45 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/1/2012 7:20:45 AM
Surr: 2,4,6-Tribromophenol	54.3	44.2-126		%REC	1	6/1/2012 7:20:45 AM
Surr: 2-Fluorobiphenyl	71.0	37-114		%REC	1	6/1/2012 7:20:45 AM
Surr: 2-Fluorophenol	40.2	23.4-98		%REC	1	6/1/2012 7:20:45 AM
Surr: 4-Terphenyl-d14	73.0	41.3-116		%REC	1	6/1/2012 7:20:45 AM
Surr: Nitrobenzene-d5	82.6	39.5-118		%REC	1	6/1/2012 7:20:45 AM
Surr: Phenol-d5	41.4	20.9-95.9		%REC	1	6/1/2012 7:20:45 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Toluene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-012 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 5/29/2012 2:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Naphthalene	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 7:15:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 7:15:12 AM
Acetone	ND	10		µg/L	1	6/2/2012 7:15:12 AM
Bromobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Bromoform	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Bromomethane	ND	3.0		µg/L	1	6/2/2012 7:15:12 AM
2-Butanone	ND	10		µg/L	1	6/2/2012 7:15:12 AM
Carbon disulfide	ND	10		µg/L	1	6/2/2012 7:15:12 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Chlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Chloroethane	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
Chloroform	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Chloromethane	ND	3.0		µg/L	1	6/2/2012 7:15:12 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Dibromomethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
2-Hexanone	ND	10		µg/L	1	6/2/2012 7:15:12 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-012 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 5/29/2012 2:15:00 PM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	6/2/2012 7:15:12 AM
Methylene Chloride	ND	3.0		µg/L	1	6/2/2012 7:15:12 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Styrene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/2/2012 7:15:12 AM
Vinyl chloride	ND	1.0		µg/L	1	6/2/2012 7:15:12 AM
Xylenes, Total	ND	1.5		µg/L	1	6/2/2012 7:15:12 AM
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	1	6/2/2012 7:15:12 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/2/2012 7:15:12 AM
Surr: Dibromofluoromethane	98.1	69.8-130		%REC	1	6/2/2012 7:15:12 AM
Surr: Toluene-d8	104	70-130		%REC	1	6/2/2012 7:15:12 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	27000	0.50		µmhos/cm	50	5/31/2012 6:55:10 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.86	1.68	H	pH units	1	5/31/2012 11:21:34 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1205B66**
Date Reported: **6/27/2012**

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-013 **Matrix:** AQUEOUS

Client Sample ID: BW TO EP-2
Collection Date: 5/29/2012 11:00:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.82	0.50		mg/L	5	6/5/2012 11:43:55 PM
Chloride	60	2.5		mg/L	5	6/5/2012 11:43:55 PM
Bromide	ND	0.50		mg/L	5	6/5/2012 11:43:55 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	6/5/2012 11:43:55 PM
Sulfate	1700	100		mg/L	200	6/6/2012 12:08:44 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/20/2012 4:05:16 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Calcium	4.5	1.0		mg/L	1	6/14/2012 7:52:26 AM
Magnesium	ND	1.0		mg/L	1	6/14/2012 7:52:26 AM
Potassium	2.8	1.0		mg/L	1	6/14/2012 7:52:26 AM
Sodium	1300	20		mg/L	20	6/14/2012 8:05:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-014 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 5/29/2012 9:30:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Toluene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Ethylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Naphthalene	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 8:42:54 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 8:42:54 AM
Acetone	ND	10		µg/L	1	6/2/2012 8:42:54 AM
Bromobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Bromoform	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Bromomethane	ND	3.0		µg/L	1	6/2/2012 8:42:54 AM
2-Butanone	ND	10		µg/L	1	6/2/2012 8:42:54 AM
Carbon disulfide	ND	10		µg/L	1	6/2/2012 8:42:54 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Chlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Chloroethane	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
Chloroform	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Chloromethane	ND	3.0		µg/L	1	6/2/2012 8:42:54 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Dibromomethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
2-Hexanone	ND	10		µg/L	1	6/2/2012 8:42:54 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-014 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 5/29/2012 9:30:00 AM
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/2/2012 8:42:54 AM
Methylene Chloride	ND	3.0		µg/L	1	6/2/2012 8:42:54 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Styrene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/2/2012 8:42:54 AM
Vinyl chloride	ND	1.0		µg/L	1	6/2/2012 8:42:54 AM
Xylenes, Total	ND	1.5		µg/L	1	6/2/2012 8:42:54 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	6/2/2012 8:42:54 AM
Surr: 4-Bromofluorobenzene	118	70-130		%REC	1	6/2/2012 8:42:54 AM
Surr: Dibromofluoromethane	92.8	69.8-130		%REC	1	6/2/2012 8:42:54 AM
Surr: Toluene-d8	101	70-130		%REC	1	6/2/2012 8:42:54 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-015 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Toluene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Ethylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Naphthalene	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 9:12:16 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/2/2012 9:12:16 AM
Acetone	ND	10		µg/L	1	6/2/2012 9:12:16 AM
Bromobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Bromoform	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Bromomethane	ND	3.0		µg/L	1	6/2/2012 9:12:16 AM
2-Butanone	ND	10		µg/L	1	6/2/2012 9:12:16 AM
Carbon disulfide	ND	10		µg/L	1	6/2/2012 9:12:16 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Chlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Chloroethane	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
Chloroform	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Chloromethane	ND	3.0		µg/L	1	6/2/2012 9:12:16 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Dibromomethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
2-Hexanone	ND	10		µg/L	1	6/2/2012 9:12:16 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 SEMI ANNUAL PONDS
Lab ID: 1205B66-015 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 5/30/2012 1:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/2/2012 9:12:16 AM
Methylene Chloride	ND	3.0		µg/L	1	6/2/2012 9:12:16 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Styrene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/2/2012 9:12:16 AM
Vinyl chloride	ND	1.0		µg/L	1	6/2/2012 9:12:16 AM
Xylenes, Total	ND	1.5		µg/L	1	6/2/2012 9:12:16 AM
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%REC	1	6/2/2012 9:12:16 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/2/2012 9:12:16 AM
Surr: Dibromofluoromethane	94.1	69.8-130		%REC	1	6/2/2012 9:12:16 AM
Surr: Toluene-d8	109	70-130		%REC	1	6/2/2012 9:12:16 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

Date Received : June 01, 2012
Description :
Sample ID : 1205B66-001F EP-2
Collected By :
Collection Date : 05/29/12 10:45

ESC Sample # : L578081-01
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	860	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

Date Received : June 01, 2012
Description :

ESC Sample # : L578081-02

Sample ID : 1205B66-002F EP-1

Site ID :

Project # :

Collected By :
Collection Date : 05/29/12 10:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	990	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

Date Received : June 01, 2012
Description :
Sample ID : 1205B66-003F EP-12B
Collected By :
Collection Date : 05/29/12 11:35

ESC Sample # : L578081-03
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	920	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

ESC Sample # : L578081-04

Date Received : June 01, 2012
Description :

Site ID :

Sample ID : 1205B66-004F EP-12A

Project # :

Collected By :
Collection Date : 05/29/12 11:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	660	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

ESC Sample # : L578081-05

Date Received : June 01, 2012
Description :

Sample ID : 1205B66-005F EP-11

Site ID :

Project # :

Collected By :
Collection Date : 05/29/12 12:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	890	20.	mg/l	410.4	06/08/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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June 08, 2012

Date Received : June 01, 2012
Description :

ESC Sample # : L578081-06

Site ID :

Sample ID : 1205B66-006F EP-7

Project # :

Collected By :
Collection Date : 05/29/12 12:25

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	3200	500	mg/l	410.4	06/07/12	50

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Anne Thorne
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4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

Date Received : June 01, 2012
Description :

ESC Sample # : L578081-07

Sample ID : 1205B66-007F EP-8

Site ID :

Project # :

Collected By :
Collection Date : 05/29/12 12:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	3800	500	mg/l	410.4	06/07/12	50

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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4901 Hawkins NE
Albuquerque, NM 87109

June 08, 2012

Date Received : June 01, 2012
Description :

ESC Sample # : L578081-08

Sample ID : 1205B66-008F EP-5

Site ID :

Project # :

Collected By :
Collection Date : 05/29/12 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	760	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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June 08, 2012

Date Received : June 01, 2012
Description :

Sample ID : 1205B66-009F EP-4

Collected By :
Collection Date : 05/29/12 13:15

ESC Sample # : L578081-09

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	680	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

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June 08, 2012

ESC Sample # : L578081-10

Site ID :

Project # :

Date Received : June 01, 2012
Description :

Sample ID : 1205B66-010F EP-3

Collected By :
Collection Date : 05/29/12 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	980	20.	mg/l	410.4	06/08/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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June 08, 2012

ESC Sample # : L578081-11

Date Received : June 01, 2012
Description :

Sample ID : 1205B66-011F EP-9

Site ID :

Project # :

Collected By :
Collection Date : 05/29/12 13:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	2800	500	mg/l	410.4	06/07/12	50

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
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Albuquerque, NM 87109

June 08, 2012

ESC Sample # : L578081-12

Site ID :

Project # :

Date Received : June 01, 2012
Description :

Sample ID : 1205B66-012F EP-6

Collected By :
Collection Date : 05/29/12 14:15

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	710	10.	mg/l	410.4	06/07/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 06/08/12 17:30 Printed: 06/08/12 17:31

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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L578081

June 08, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG596480	06/07/12 13:37
COD	< 10	mg/l			WG596481	06/07/12 13:57
COD	< 10	mg/l			WG596773	06/08/12 13:46

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	1600	1600	0.627	5	L577700-01	WG596480
COD	mg/l	2300	2400	5.57*	5	L577722-01	WG596480
COD	mg/l	3200	3200	0.312	5	L577722-02	WG596480
COD	mg/l	29.0	31.0	8.05*	5	L578159-01	WG596481
COD	mg/l	920.	920.	0.218	5	L578081-03	WG596481
COD	mg/l	980.	980.	0	5	L578081-10	WG596773
COD	mg/l	32.0	24.0	27.6*	5	L578215-02	WG596773

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	233.	101.	90-110	WG596480
COD	mg/l	230	236.	103.	90-110	WG596481
COD	mg/l	230	241.	105.	90-110	WG596773

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	238.	233.	103.	90-110	2.12	5	WG596480
COD	mg/l	235.	236.	102.	90-110	0.425	5	WG596481
COD	mg/l	238.	241.	103.	90-110	1.25	5	WG596773

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	453.	66.0	400	96.8	90-110	L577520-01	WG596480
COD	mg/l	937.	660.	400	69.2*	90-110	L578081-04	WG596481
COD	mg/l	708.	320.	400	97.0	90-110	L577916-01	WG596773

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

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Hall Environmental Analysis Laboratory
Anne Thorne
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Quality Assurance Report
Level II

L578081

June 08, 2012

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	457.	453.	97.8	90-110	0.879	5	L577520-01	WG596480
COD	mg/l	936.	937.	69.0*	90-110	0.107	5	L578081-04	WG596481
COD	mg/l	705.	708.	96.2	90-110	0.425	5	L577916-01	WG596773

Batch number /Run number / Sample number cross reference

WG596480: R2201074: L578081-01 02
WG596481: R2201494: L578081-03 04 06 07 08 09 10 11 12
WG596773: R2202773: L578081-05 10

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **ICB**	SampType: **ICB**	TestCode: **EPA Method 200.7: Metals**
Client ID: **ICB**	Batch ID: **R3423**	RunNo: **3423**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **95696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0	1.000	0	0.453	-100	99			
Magnesium	ND	1.0	1.000	0	0.125	-100	99			
Potassium	ND	1.0	1.000	0	-1.41	-100	99			
Sodium	ND	1.0	1.000	0	3.75	-100	99			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R3423**	RunNo: **3423**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **95701** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R3423**	RunNo: **3423**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **95702** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0.2811	102	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Sodium	49	1.0	50.00	0	98.8	85	115			

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3430**
Prep Date: **6/4/2012**	Analysis Date: **6/14/2012**	SeqNo: **96128** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **LCS-2211**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **2211**	RunNo: **3430**
Prep Date: **6/4/2012**	Analysis Date: **6/14/2012**	SeqNo: **96129** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.0005500	97.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.6	85	115			
Chromium	0.48	0.0060	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.2	85	115			
Manganese	0.47	0.0020	0.5000	0	95.0	85	115			
Silver	0.099	0.0050	0.1000	0	98.9	85	115			
Zinc	0.49	0.010	0.5000	0.002630	97.5	85	115			

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3472**
Prep Date: **6/4/2012**	Analysis Date: **6/15/2012**	SeqNo: **101037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID **LCS-2211**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **2211**	RunNo: **3472**
Prep Date: **6/4/2012**	Analysis Date: **6/15/2012**	SeqNo: **101038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3423**	RunNo: **3423**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **95925** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3423**	RunNo: **3423**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **95926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0.2811	102	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Potassium	48	1.0	50.00	0	96.8	85	115			
Sodium	49	1.0	50.00	0	98.8	85	115			

Sample ID **ICV**	SampType: **ICV**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **ICV**	Batch ID: **R3472**	RunNo: **3472**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97287** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	95	105			
Cadmium	0.52	0.0020	0.5000	0	103	95	105			
Copper	0.51	0.0060	0.5000	0	102	95	105			
Lead	0.51	0.0050	0.5000	0	103	95	105			
Manganese	0.52	0.0020	0.5000	0	103	95	105			
Silver	0.52	0.0050	0.5000	0	104	95	105			

Sample ID **ICB**	SampType: **ICB**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **ICB**	Batch ID: **R3472**	RunNo: **3472**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97288** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	-14.5	-100	99			
Cadmium	ND	0.0020	0.002000	0	10.0	-100	99			
Calcium	ND	1.0	1.000	0	0.318	-100	99			
Copper	ND	0.0060	0.006000	0	4.83	-100	99			
Lead	ND	0.0050	0.005000	0	-16.0	-100	99			
Magnesium	ND	1.0	1.000	0	0.0170	-100	99			
Manganese	ND	0.0020	0.002000	0	15.0	-100	99			
Potassium	ND	1.0	1.000	0	3.33	-100	99			
Silver	ND	0.0050	0.005000	0	4.80	-100	99			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R3472** RunNo: **3472**

Prep Date: Analysis Date: **6/15/2012** SeqNo: **97292** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Copper	ND	0.0060								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R3472** RunNo: **3472**

Prep Date: Analysis Date: **6/15/2012** SeqNo: **97293** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Calcium	50	1.0	50.00	0	99.1	85	115			
Copper	0.48	0.0060	0.5000	0	95.8	85	115			
Lead	0.50	0.0050	0.5000	0	99.8	85	115			
Magnesium	49	1.0	50.00	0	97.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Potassium	47	1.0	50.00	0	94.1	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID **ICV** SampType: **ICV** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **ICV** Batch ID: **R3552** RunNo: **3552**

Prep Date: Analysis Date: **6/19/2012** SeqNo: **100110** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	95	105			
Chromium	0.49	0.0060	0.5000	0	99.0	95	105			
Copper	0.50	0.0060	0.5000	0	100	95	105			
Iron	0.49	0.020	0.5000	0	97.2	95	105			
Lead	0.50	0.0050	0.5000	0	100	95	105			
Zinc	0.50	0.010	0.5000	0	100	95	105			

Sample ID **ICB** SampType: **ICB** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **ICB** Batch ID: **R3552** RunNo: **3552**

Prep Date: Analysis Date: **6/19/2012** SeqNo: **100111** Units: **mg/L**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **ICB**	SampType: **ICB**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **ICB**	Batch ID: **R3552**	RunNo: **3552**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100111** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020	0.002000	0	-0.500	-100	99			
Calcium	ND	1.0	1.000	0	-0.766	-100	99			
Chromium	ND	0.0060	0.006000	0	12.5	-100	99			
Copper	ND	0.0060	0.006000	0	42.3	-100	99			
Iron	ND	0.020	0.02000	0	-24.1	-100	99			
Lead	ND	0.0050	0.005000	0	48.6	-100	99			
Magnesium	ND	1.0	1.000	0	-0.109	-100	99			
Potassium	ND	1.0	1.000	0	-5.21	-100	99			
Sodium	ND	1.0	1.000	0	-0.283	-100	99			
Zinc	ND	0.010	0.01000	0	-0.300	-100	99			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3552**	RunNo: **3552**
Prep Date: **5/10/2012**	Analysis Date: **6/19/2012**	SeqNo: **100115** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3552**	RunNo: **3552**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100116** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Copper	0.49	0.0060	0.5000	0	97.3	85	115			
Iron	0.48	0.020	0.5000	0	96.2	85	115			
Lead	0.50	0.0050	0.5000	0.002890	99.1	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Potassium	52	1.0	50.00	0	103	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.48	0.010	0.5000	0	95.8	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **ICB**	SampType: **ICB**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **ICB**	Batch ID: **R3580**	RunNo: **3580**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **100992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	1.000	0	0.990	-100	99			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3580**	RunNo: **3580**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **100997** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3580**	RunNo: **3580**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **100999** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	101	85	115			

Sample ID **ICB**	SampType: **ICB**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **ICB**	Batch ID: **R3580**	RunNo: **3580**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **103841** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0	1.000	0	1.76	-100	99			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3430**
Prep Date: **6/4/2012**	Analysis Date: **6/14/2012**	SeqNo: **96102** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2211**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2211**	RunNo: **3430**
Prep Date: **6/4/2012**	Analysis Date: **6/14/2012**	SeqNo: **96103** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.0005500	97.1	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.6	85	115			
Chromium	0.48	0.0060	0.5000	0	96.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.2	85	115			
[illegible]nese	0.47	0.0020	0.5000	0	95.0	85	115			
[illegible]	0.099	0.0050	0.1000	0	98.9	85	115			
Zinc	0.49	0.010	0.5000	0.002630	97.5	85	115			

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3472**
Prep Date: **6/4/2012**	Analysis Date: **6/15/2012**	SeqNo: **97294** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID **LCS-2211**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2211**	RunNo: **3472**
Prep Date: **6/4/2012**	Analysis Date: **6/15/2012**	SeqNo: **97295** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	85	115			

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3474**
Prep Date: **6/4/2012**	Analysis Date: **6/16/2012**	SeqNo: **104093** Units: **mg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **LCS-2211**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2211**	RunNo: **3474**
Prep Date: **6/4/2012**	Analysis Date: **6/16/2012**	SeqNo: **104094** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0	94.0	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3538**	RunNo: **3538**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99659** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.027	0.0010	0.02500	0	107	85	115			
Uranium	0.024	0.0010	0.02500	0	97.3	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3538**	RunNo: **3538**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99660** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
C	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3356**
Prep Date: **6/4/2012**	Analysis Date: **6/11/2012**	SeqNo: **93647** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **MB-2211**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2211**	RunNo: **3459**
Prep Date: **6/4/2012**	Analysis Date: **6/14/2012**	SeqNo: **96999** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB-2182**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**						
Client ID: **PBW**	Batch ID: **2182**	RunNo: **3201**						
Prep Date: **6/1/2012**	Analysis Date: **6/1/2012**	SeqNo: **88720**	Units: **mg/L**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2182**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**						
Client ID: **LCSW**	Batch ID: **2182**	RunNo: **3201**						
Prep Date: **6/1/2012**	Analysis Date: **6/1/2012**	SeqNo: **88721**	Units: **mg/L**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	103	80	120			

Sample ID **MB-2194**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**						
Client ID: **PBW**	Batch ID: **2194**	RunNo: **3201**						
Prep Date: **6/1/2012**	Analysis Date: **6/1/2012**	SeqNo: **88768**	Units: **mg/L**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2194**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**						
Client ID: **LCSW**	Batch ID: **2194**	RunNo: **3201**						
Prep Date: **6/1/2012**	Analysis Date: **6/1/2012**	SeqNo: **88769**	Units: **mg/L**					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	80	120			

Qualifiers:

- *, X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3112**	RunNo: **3112**
Prep Date:	Analysis Date: **5/30/2012**	SeqNo: **86071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3112**	RunNo: **3112**
Prep Date:	Analysis Date: **5/30/2012**	SeqNo: **86072** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	92.7	90	110			
Bromide	2.4	0.10	2.500	0	97.6	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3112**	RunNo: **3112**
Prep Date:	Analysis Date: **5/30/2012**	SeqNo: **86123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3112**	RunNo: **3112**
Prep Date:	Analysis Date: **5/30/2012**	SeqNo: **86124** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	91.5	90	110			
Bromide	2.4	0.10	2.500	0	95.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.8	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3223**	RunNo: **3223**
Prep Date:	Analysis Date: **6/5/2012**	SeqNo: **89301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3223**	RunNo: **3223**
Prep Date:	Analysis Date: **6/5/2012**	SeqNo: **89301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3223**	RunNo: **3223**
Prep Date:	Analysis Date: **6/5/2012**	SeqNo: **89302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.46	0.10	0.5000	0	91.8	90	110			
Chloride	4.8	0.50	5.000	0	95.0	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.0	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3349**	RunNo: **3349**
Prep Date:	Analysis Date: **6/11/2012**	SeqNo: **93342** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3349**	RunNo: **3349**
Prep Date:	Analysis Date: **6/11/2012**	SeqNo: **93343** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.2	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3576**	RunNo: **3576**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **100775** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- C Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3576**	RunNo: **3576**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **100850** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3576**	RunNo: **3576**
Prep Date:	Analysis Date: **6/21/2012**	SeqNo: **100851** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.2	90	110			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88010** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
C[illegible] disulfide	ND	10								
C[illegible]n Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
[illegible]	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88010** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.2	69.8	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88014** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	84.1	126			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	117	83	130			
Trichloroethene (TCE)	21	1.0	20.00	0	104	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88014** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.3		10.00		92.6	69.8	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88039** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88039** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.5	69.8	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/1/2012**	SeqNo: **88040** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	22	1.0	20.00	0	110	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	117	83	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.2	69.8	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/2/2012**	SeqNo: **88052** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**
Prep Date:	Analysis Date: **6/2/2012**	SeqNo: **88052** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **PBW**	Batch ID: **R3180**	RunNo: **3180**							
Prep Date:	Analysis Date: **6/2/2012**	SeqNo: **88052**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.3		10.00		93.3	69.8	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **LCSW**	Batch ID: **R3180**	RunNo: **3180**							
Prep Date:	Analysis Date: **6/2/2012**	SeqNo: **88053**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	84.1	126			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	116	83	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.8	69.8	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **mb-2172**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2172**	RunNo: **3140**
Prep Date: **5/31/2012**	Analysis Date: **5/31/2012**	SeqNo: **86803** Units: **µg/L**

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

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **mb-2172**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2172**	RunNo: **3140**
Prep Date: **5/31/2012**	Analysis Date: **5/31/2012**	SeqNo: **86803** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
[illegible]aniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	150		200.0		75.2	44.2	126			
Surr: 2-Fluorobiphenyl	69		100.0		69.0	37	114			
Surr: 2-Fluorophenol	110		200.0		53.1	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		75.7	41.3	116			
Surr: Nitrobenzene-d5	74		100.0		73.9	39.5	118			
Surr: Phenol-d5	83		200.0		41.6	20.9	95.9			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **lcs-2172**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2172**	RunNo: **3140**
Prep Date: **5/31/2012**	Analysis Date: **5/31/2012**	SeqNo: **86804** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	76.7	38.2	99.4			
4-Chloro-3-methylphenol	170	10	200.0	0	82.6	35.5	108			
2-Chlorophenol	160	10	200.0	0	81.3	29.8	106			
1,4-Dichlorobenzene	73	10	100.0	0	73.1	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	87.5	44.7	112			
N-Nitrosodi-n-propylamine	90	10	100.0	0	90.1	38.5	105			
4-Nitrophenol	93	10	200.0	0	46.4	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	75.2	20.2	93			
Phenol	94	10	200.0	0	46.8	23	66.1			
Pyrene	79	10	100.0	0	78.6	40.1	101			
1,2,4-Trichlorobenzene	81	10	100.0	0	80.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	200		200.0		99.1	44.2	126			
Surr: 2-Fluorobiphenyl	81		100.0		80.9	37	114			
Surr: 2-Fluorophenol	120		200.0		61.8	23.4	98			
Surr: 4-Terphenyl-d14	86		100.0		85.7	41.3	116			
Surr: Nitrobenzene-d5	88		100.0		88.5	39.5	118			
Surr: Phenol-d5	94		200.0		47.1	20.9	95.9			

Sample ID **lcsd-2172**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2172**	RunNo: **3140**
Prep Date: **5/31/2012**	Analysis Date: **6/1/2012**	SeqNo: **86806** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	79	10	100.0	0	79.5	38.2	99.4	3.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.4	35.5	108	2.77	20	
2-Chlorophenol	160	10	200.0	0	81.0	29.8	106	0.333	20	
1,4-Dichlorobenzene	78	10	100.0	0	77.7	32.6	91.5	6.13	20	
2,4-Dinitrotoluene	92	10	100.0	0	91.6	44.7	112	4.67	20	
N-Nitrosodi-n-propylamine	94	10	100.0	0	94.2	38.5	105	4.45	20	
4-Nitrophenol	93	10	200.0	0	46.7	11.6	73.1	0.752	20	
Pentachlorophenol	150	20	200.0	0	75.7	20.2	93	0.742	20	
Phenol	96	10	200.0	0	48.0	23	66.1	2.58	20	
Pyrene	82	10	100.0	0	82.5	40.1	101	4.84	20	
1,2,4-Trichlorobenzene	90	10	100.0	0	89.7	37.7	99.1	10.7	20	
Surr: 2,4,6-Tribromophenol	190		200.0		95.7	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	79		100.0		78.9	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		55.0	23.4	98	0	0	
Surr: 4-Terphenyl-d14	86		100.0		85.9	41.3	116	0	0	
Surr: Nitrobenzene-d5	82		100.0		81.7	39.5	118	0	0	
Surr: Phenol-d5	84		200.0		42.2	20.9	95.9	0	0	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **1410uS eC icv**	SampType: **icv**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **ICV**	Batch ID: **R3136**	RunNo: **3136**							
Prep Date:	Analysis Date: **5/31/2012**	SeqNo: **86718**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	1400	0.010	1410	0	97.8	90	110			

Sample ID **1205B66-002C dup**	SampType: **dup**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **EP-1**	Batch ID: **R3136**	RunNo: **3136**							
Prep Date:	Analysis Date: **5/31/2012**	SeqNo: **86722**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	8700	0.010						0.217	20	

Sample ID **1205B66-012C DUP**	SampType: **dup**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **EP-6**	Batch ID: **R3136**	RunNo: **3136**							
Prep Date:	Analysis Date: **5/31/2012**	SeqNo: **86747**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	27000	0.50						0.409	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1205B66**

27-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2012 SEMI ANNUAL PONDS

Sample ID **7.00 pH icv**	SampType: **icv**	TestCode: **SM4500-H+B: pH**
Client ID: **ICV**	Batch ID: **R3136**	RunNo: **3136**
Prep Date:	Analysis Date: **5/31/2012**	SeqNo: **86687** Units: **pH units**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.01	1.68								

Sample ID **1205B66-002C dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**
Client ID: **EP-1**	Batch ID: **R3136**	RunNo: **3136**
Prep Date:	Analysis Date: **5/31/2012**	SeqNo: **86702** Units: **pH units**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.74	1.68								H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1205B66

Received by/date: JB 05/30/12 1300

Logged By: Anne Thorne 5/30/2012 1:00:00 PM

Completed By: Anne Thorne 5/30/2012

Reviewed By: JB 05/30/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 3 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
4	1.0	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 6°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1205B66	Analysis Request: 8260+MTBE	8270	WQCC METALS - TOTAL	WQCC METALS - DISS (FILTERED	GEN CHEM (pH, Spec Cond, Cations/Anions)	COD	Air Bubbles (Y or N)
5/29/2012	1045	H20	EP-2			-001	X	X	X	X	X	X	
5/29/2012	1110	H20	EP-1			-002	X	X	X	X	X	X	
5/29/2012	1135	H20	EP-12B			-003	X	X	X	X	X	X	
5/29/2012	1155	H20	EP-12A			-004	X	X	X	X	X	X	
5/29/2012	1210	H20	EP-11			-005	X	X	X	X	X	X	
5/29/2012	1225	H20	EP-7			-006	X	X	X	X	X	X	
5/29/2012	1240	H20	EP-8			-007	X	X	X	X	X	X	
5/29/2012	1300	H20	EP-5			-008	X	X	X	X	X	X	
5/29/2012	1315	H20	EP-4			-009	X	X	X	X	X	X	
5/29/2012	1330	H20	EP-3			-010	X	X	X	X	X	X	
5/29/2012	1355	H20	EP-9			-011	X	X	X	X	X	X	
5/29/2012	1415	H20	EP-6			-012	X	X	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/30/12	1300			05/30/12	1300
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: WQCC Metals to include RCRA 8 Metals

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

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.0°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1205B46	8260+MTBE		MAJOR CATIONS/ANIONS														Air Bubbles (Y or N)
5/29/2012	1100	H20	BW TO EP-2			-013			X														
5/29/2012	0930	H20	FIELD BLANK			-014	X																
5/29/2012		H20	TRIP BLANK			-015	X																

Date	Time	Relinquished by:	Received by:	Date	Time
5/30/12	1300			05/30/12	1340
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

June 21, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206685

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/15/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206685**
Date Reported: **6/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/14/2012 9:40:00 AM
Lab ID: 1206685-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Methyl tert-butyl ether (MTBE)	7.9	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 6:18:51 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 6:18:51 PM
Acetone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 6:18:51 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206685-001 **Matrix:** AQUEOUS

Client Sample ID: OW-13
Collection Date: 6/14/2012 9:40:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 6:18:51 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 6:18:51 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 6:18:51 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 6:18:51 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 6:18:51 PM
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	6/19/2012 6:18:51 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 6:18:51 PM
Surr: Dibromofluoromethane	114	69.8-130		%REC	1	6/19/2012 6:18:51 PM
Surr: Toluene-d8	97.6	70-130		%REC	1	6/19/2012 6:18:51 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/14/2012 8:05:00 AM
Lab ID: 1206685-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2600	50		µg/L	50	6/19/2012 6:47:08 PM
Toluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Ethylbenzene	53	10		µg/L	10	6/19/2012 7:15:26 PM
Methyl tert-butyl ether (MTBE)	1200	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Naphthalene	ND	20		µg/L	10	6/19/2012 7:15:26 PM
1-Methylnaphthalene	ND	40		µg/L	10	6/19/2012 7:15:26 PM
2-Methylnaphthalene	ND	40		µg/L	10	6/19/2012 7:15:26 PM
Acetone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Bromobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromodichloromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromoform	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Bromomethane	ND	30		µg/L	10	6/19/2012 7:15:26 PM
2-Butanone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Carbon disulfide	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Carbon Tetrachloride	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chloroethane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Chloroform	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Chloromethane	ND	30		µg/L	10	6/19/2012 7:15:26 PM
2-Chlorotoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Chlorotoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
cis-1,2-DCE	ND	10		µg/L	10	6/19/2012 7:15:26 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Dibromochloromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Dibromomethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Dichlorodifluoromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloroethene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2-Dichloropropane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,3-Dichloropropane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
2,2-Dichloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
1,1-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Hexachlorobutadiene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
2-Hexanone	ND	100		µg/L	10	6/19/2012 7:15:26 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206685-002 **Matrix:** AQUEOUS

Client Sample ID: OW-14
Collection Date: 6/14/2012 8:05:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Isopropyltoluene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/19/2012 7:15:26 PM
Methylene Chloride	ND	30		µg/L	10	6/19/2012 7:15:26 PM
n-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
n-Propylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
sec-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Styrene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
tert-Butylbenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
trans-1,2-DCE	ND	10		µg/L	10	6/19/2012 7:15:26 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Trichloroethene (TCE)	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Trichlorofluoromethane	ND	10		µg/L	10	6/19/2012 7:15:26 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/19/2012 7:15:26 PM
Vinyl chloride	ND	10		µg/L	10	6/19/2012 7:15:26 PM
Xylenes, Total	ND	15		µg/L	10	6/19/2012 7:15:26 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	10	6/19/2012 7:15:26 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	10	6/19/2012 7:15:26 PM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/19/2012 7:15:26 PM
Surr: Toluene-d8	96.2	70-130		%REC	10	6/19/2012 7:15:26 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 2:00:00 PM
Lab ID: 1206685-003 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Methyl tert-butyl ether (MTBE)	470	10		µg/L	10	6/20/2012 2:51:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 7:43:41 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 7:43:41 PM
Acetone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 7:43:41 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 2:00:00 PM
Lab ID: 1206685-003 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 7:43:41 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 7:43:41 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 7:43:41 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 7:43:41 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 7:43:41 PM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	1	6/19/2012 7:43:41 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 7:43:41 PM
Surr: Dibromofluoromethane	119	69.8-130		%REC	1	6/19/2012 7:43:41 PM
Surr: Toluene-d8	98.0	70-130		%REC	1	6/19/2012 7:43:41 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/14/2012 10:25:00 AM
Lab ID: 1206685-004 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Methyl tert-butyl ether (MTBE)	1500	20		µg/L	20	6/20/2012 3:20:18 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 8:11:52 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 8:11:52 PM
Acetone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 8:11:52 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206685-004 **Matrix:** AQUEOUS

Client Sample ID: OW-30
Collection Date: 6/14/2012 10:25:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 8:11:52 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 8:11:52 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 8:11:52 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 8:11:52 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 8:11:52 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	6/19/2012 8:11:52 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	6/19/2012 8:11:52 PM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/19/2012 8:11:52 PM
Surr: Toluene-d8	98.2	70-130		%REC	1	6/19/2012 8:11:52 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/14/2012 7:50:00 AM
Lab ID: 1206685-005 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Toluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Ethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Naphthalene	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 9:08:22 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/19/2012 9:08:22 PM
Acetone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Bromobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromodichloromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromoform	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Bromomethane	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
2-Butanone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Carbon disulfide	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chloroethane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Chloroform	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Chloromethane	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
2-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Chlorotoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
cis-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Dibromochloromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Dibromomethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
2-Hexanone	ND	10		µg/L	1	6/19/2012 9:08:22 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206685-005 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/14/2012 7:50:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/19/2012 9:08:22 PM
Methylene Chloride	ND	3.0		µg/L	1	6/19/2012 9:08:22 PM
n-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
n-Propylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
sec-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Styrene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
tert-Butylbenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
trans-1,2-DCE	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/19/2012 9:08:22 PM
Vinyl chloride	ND	1.0		µg/L	1	6/19/2012 9:08:22 PM
Xylenes, Total	ND	1.5		µg/L	1	6/19/2012 9:08:22 PM
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	6/19/2012 9:08:22 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	6/19/2012 9:08:22 PM
Surr: Dibromofluoromethane	111	69.8-130		%REC	1	6/19/2012 9:08:22 PM
Surr: Toluene-d8	95.7	70-130		%REC	1	6/19/2012 9:08:22 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206685**

21-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100059** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206685**

21-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100059** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100062** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.5	84.1	126			
Toluene	18	1.0	20.00	0	91.3	80	120			
Chlorobenzene	19	1.0	20.00	0	93.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.4	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.8	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
X	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206685**

21-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100062** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **1206776-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100063** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	3.090	101	71.1	135			
Toluene	22	1.0	20.00	3.512	92.2	74	121			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.4	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	92.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	11		10.00		115	69.8	130			
Surr: Toluene-d8	9.7		10.00		96.5	70	130			

Sample ID **1206776-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3550**	RunNo: **3550**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100065** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	3.090	96.3	71.1	135	4.25	21.9	
Toluene	21	1.0	20.00	3.512	86.2	74	121	5.60	18.5	
Chlorobenzene	18	1.0	20.00	0	90.2	70	130	2.28	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	89.9	76.3	127	8.06	16.5	
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	7.32	18.9	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		115	69.8	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.8	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3578**	RunNo: **3578**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **100935** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	12		10.00		120	69.8	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206685**

21-Jun-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3578**	RunNo: **3578**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **100935** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3578**	RunNo: **3578**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **100937** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	12		10.00		117	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1206685

Received by/date: AG 06/15/12

Logged By: **Anne Thorne** 6/15/2012 9:31:00 AM

Completed By: **Anne Thorne** 6/15/2012

Reviewed By: JO 06/15/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Client: Western Refining

☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Mailing Address: Rt 3 Box 7, Gallup, NM 87301

Project #: Quarterly Sampling

Phone #: 505-722-3833

email or Fax#: 505-722-0210

Project Manager: Cheryl Johnson

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Sampler:

Sample Temperature:

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		Analysis Request: VOC
6/14/12	0940	W	OW-13	3 VOA's	HCL	-001	X
6/14/12	0805		OW-14			-002	X
6/13/12	1400		OW-29			-003	X
6/14/12	1025		OW-30			-004	X
6/14/12	0750		FIELD BLANK			-005	X

Date	Time	Relinquished by:	Received by:	Date	Time	Remarks:
6/15/12	0931	Tom Pleasant		06/15/12	0931	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 25, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: ~~1st~~ 2nd QTR Groundwater Sampling

OrderNo.: 1206669

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 6/15/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206669**
Date Reported: **6/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to Al-1
Project: 1st QTR Groundwater Sampling
Collection Date: 6/14/2012 10:50:00 AM
Lab ID: 1206669-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	9.2	1.0		mg/L	1	6/18/2012 11:04:17 AM
Motor Oil Range Organics (MRO)	44	5.0		mg/L	1	6/18/2012 11:04:17 AM
Surr: DNOP	134	61.3-164		%REC	1	6/18/2012 11:04:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	8.1	2.5		mg/L	50	6/20/2012 2:55:37 AM
Surr: BFB	80.8	69.3-120		%REC	50	6/20/2012 2:55:37 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	210	10		mg/L	20	6/15/2012 11:32:40 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	410	2.0		mg/L	1	6/20/2012 10:08:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Aniline	410	100		µg/L	10	6/18/2012 8:55:40 PM
Anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Benzyl alcohol	13	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Carbazole	11	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Chrysene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 3:20:26 PM

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 1st QTR Groundwater Sampling
Lab ID: 1206669-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to Al-1
Collection Date: 6/14/2012 10:50:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dimethylphenol	240	100		µg/L	10	6/18/2012 8:55:40 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Fluorene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Isophorone	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1-Methylnaphthalene	73	10		µg/L	1	6/18/2012 3:20:26 PM
2-Methylnaphthalene	110	10		µg/L	1	6/18/2012 3:20:26 PM
2-Methylphenol	1200	100		µg/L	10	6/18/2012 8:55:40 PM
3+4-Methylphenol	2100	500		µg/L	50	6/19/2012 9:41:37 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Naphthalene	96	10		µg/L	1	6/18/2012 3:20:26 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 3:20:26 PM
Phenanthrene	13	10		µg/L	1	6/18/2012 3:20:26 PM
Phenol	4100	500		µg/L	50	6/19/2012 9:41:37 AM
Pyrene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
Pyridine	ND	10		µg/L	1	6/18/2012 3:20:26 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:20:26 PM

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to Al-1
Project: 1st QTR Groundwater Sampling
Collection Date: 6/14/2012 10:50:00 AM
Lab ID: 1206669-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2,4,6-Tribromophenol	76.9	44.2-126		%REC	1	6/18/2012 3:20:26 PM
Surr: 2-Fluorobiphenyl	62.5	37-114		%REC	1	6/18/2012 3:20:26 PM
Surr: 2-Fluorophenol	32.7	23.4-98		%REC	1	6/18/2012 3:20:26 PM
Surr: 4-Terphenyl-d14	72.0	41.3-116		%REC	1	6/18/2012 3:20:26 PM
Surr: Nitrobenzene-d5	72.4	39.5-118		%REC	1	6/18/2012 3:20:26 PM
Surr: Phenol-d5	42.7	20.9-95.9		%REC	1	6/18/2012 3:20:26 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	670	10		µg/L	10	6/18/2012 6:08:42 AM
Toluene	1300	100		µg/L	100	6/18/2012 6:45:11 PM
Ethylbenzene	130	10		µg/L	10	6/18/2012 6:08:42 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,4-Trimethylbenzene	160	10		µg/L	10	6/18/2012 6:08:42 AM
1,3,5-Trimethylbenzene	47	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Naphthalene	130	20		µg/L	10	6/18/2012 6:08:42 AM
1-Methylnaphthalene	73	40		µg/L	10	6/18/2012 6:08:42 AM
2-Methylnaphthalene	110	40		µg/L	10	6/18/2012 6:08:42 AM
Acetone	1600	100		µg/L	10	6/18/2012 6:08:42 AM
Bromobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromodichloromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromoform	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Bromomethane	ND	30		µg/L	10	6/18/2012 6:08:42 AM
2-Butanone	280	100		µg/L	10	6/18/2012 6:08:42 AM
Carbon disulfide	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chloroethane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Chloroform	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Chloromethane	ND	30		µg/L	10	6/18/2012 6:08:42 AM
2-Chlorotoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Chlorotoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
cis-1,2-DCE	ND	10		µg/L	10	6/18/2012 6:08:42 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Dibromochloromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Dibromomethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to Al-1
Project: 1st QTR Groundwater Sampling
Collection Date: 6/14/2012 10:50:00 AM
Lab ID: 1206669-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
2-Hexanone	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Isopropylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/18/2012 6:08:42 AM
Methylene Chloride	ND	30		µg/L	10	6/18/2012 6:08:42 AM
n-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
n-Propylbenzene	19	10		µg/L	10	6/18/2012 6:08:42 AM
sec-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Styrene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
tert-Butylbenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
trans-1,2-DCE	ND	10		µg/L	10	6/18/2012 6:08:42 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/18/2012 6:08:42 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/18/2012 6:08:42 AM
Vinyl chloride	ND	10		µg/L	10	6/18/2012 6:08:42 AM
Xylenes, Total	830	15		µg/L	10	6/18/2012 6:08:42 AM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	10	6/18/2012 6:08:42 AM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	10	6/18/2012 6:08:42 AM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/18/2012 6:08:42 AM
Surr: Toluene-d8	94.9	70-130		%REC	10	6/18/2012 6:08:42 AM
SM4500-H+B: PH						Analyst: **DBD**
pH	8.73	1.68	*H	pH units	1	6/18/2012 11:45:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 25, 2012

Date Received : June 19, 2012
Description :

ESC Sample # : L581021-01

Sample ID : 1206669-001F INFL TO AL-1

Site ID :

Collected By :
Collection Date : 06/14/12 10:50

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1100	20.	mg/l	410.4	06/23/12	2

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

Reported: 06/25/12 09:22 Printed: 06/25/12 09:23

ESC LAB SCIENCES
YOUR LAB OF CHOICE

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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
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Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L581021

June 25, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG599342	06/23/12 13:19

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	3200	3400	4.82	5	L579957-01	WG599342
COD	mg/l	640.	660.	2.76	5	L580205-01	WG599342
COD	mg/l	1200	1100	4.44	5	L581021-01	WG599342

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	236.	103.	90-110	WG599342

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	232.	236.	101.	90-110	1.71	5	WG599342

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	684.	290.	400	98.5	90-110	L581126-01	WG599342

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	685.	684.	98.8	90-110	0.146	5	L581126-01	WG599342

Batch number /Run number / Sample number cross reference

WG599342: R2223914: L581021-01

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3480**	RunNo: **3480**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97695** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3480**	RunNo: **3480**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97696** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.4	90	110			

Sample ID **1206653-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3480**	RunNo: **3480**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97698** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.51	104	87.8	111			

Sample ID **1206653-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3480**	RunNo: **3480**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **97699** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	16	0.50	5.000	10.51	104	87.8	111	0.218	20	

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **MB-2434**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		125	61.3	164			

Sample ID **LCS-2434**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157			
Surr: DNOP	0.52		0.5000		104	61.3	164			

Sample ID **LCSD-2434**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100247** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.3	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100248** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	107	101	123			
Surr: BFB	21		20.00		107	69.3	120			

Sample ID **1206669-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl to Al-1**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100405** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	2.5	25.00	8.110	85.3	75.4	121			
Surr: BFB	1200		1000		118	69.3	120			

Sample ID **1206669-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl to Al-1**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100406** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	2.5	25.00	8.110	84.0	75.4	121	1.09	10.5	
Surr: BFB	1000		1000		104	69.3	120	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3493**	RunNo: **3493**
Prep Date:	Analysis Date: **6/17/2012**	SeqNo: **98225** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
...n Tetrachloride	ND	1.0								
...orobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

- ... Value exceeds Maximum Contaminant Level.
- ... Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3493**	RunNo: **3493**
Prep Date:	Analysis Date: **6/17/2012**	SeqNo: **98225** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		113	69.8	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3493**	RunNo: **3493**
Prep Date:	Analysis Date: **6/17/2012**	SeqNo: **98228** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	84.1	126			
Chlorobenzene	18	1.0	20.00	0	92.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.3	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	12		10.00		117	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **1206592-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3493** RunNo: **3493**

Prep Date: Analysis Date: **6/17/2012** SeqNo: **98229** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	93	5.0	100.0	0	93.1	70	130			
1,1-Dichloroethene	100	5.0	100.0	0	100	76.3	127			
Trichloroethene (TCE)	92	5.0	100.0	0	91.6	70	130			
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		93.4	70	130			
Surr: Dibromofluoromethane	53		50.00		106	69.8	130			
Surr: Toluene-d8	46		50.00		92.0	70	130			

Sample ID **1206592-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3493** RunNo: **3493**

Prep Date: Analysis Date: **6/17/2012** SeqNo: **98230** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	89	5.0	100.0	0	89.1	70	130	4.35	17.7	
1,1-Dichloroethene	94	5.0	100.0	0	94.5	76.3	127	5.82	16.5	
Trichloroethene (TCE)	91	5.0	100.0	0	91.3	70	130	0.289	18.9	
Surr: 1,2-Dichloroethane-d4	51		50.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	48		50.00		96.4	70	130	0	0	
Surr: Dibromofluoromethane	56		50.00		112	69.8	130	0	0	
Surr: Toluene-d8	47		50.00		94.6	70	130	0	0	

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

Client ID: **PBW** Batch ID: **R3521** RunNo: **3521**

Prep Date: Analysis Date: **6/18/2012** SeqNo: **99095** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	69.8	130			
Surr: Toluene-d8	9.5		10.00		94.6	70	130			

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

Client ID: **LCSW** Batch ID: **R3521** RunNo: **3521**

Prep Date: Analysis Date: **6/18/2012** SeqNo: **99109** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	18	1.0	20.00	0	89.6	80	120			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.5	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **1206677-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3521** RunNo: **3521**

Prep Date: Analysis Date: **6/18/2012** SeqNo: **99122** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	19	1.0	20.00	0.8094	89.6	74	121			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.2	70	130			
Surr: Dibromofluoromethane	12		10.00		122	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.2	70	130			

Sample ID **1206677-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3521** RunNo: **3521**

Prep Date: Analysis Date: **6/18/2012** SeqNo: **99125** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	17	1.0	20.00	0.8094	80.1	74	121	10.7	18.5	
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		120	69.8	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.3	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **lcs-2433**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98782** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.0	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	82.2	35.5	108			
2-Chlorophenol	140	10	200.0	0	70.6	29.8	106			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	86.8	44.7	112			
N-Nitrosodi-n-propylamine	81	10	100.0	0	80.6	38.5	105			
4-Nitrophenol	85	10	200.0	0	42.3	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	65.2	20.2	93			
Phenol	96	10	200.0	0	48.1	23	66.1			
Pyrene	85	10	100.0	0	84.6	40.1	101			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.1	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		86.5	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		76.0	37	114			
Surr: 2-Fluorophenol	110		200.0		55.1	23.4	98			
Surr: 4-Terphenyl-d14	93		100.0		92.6	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		77.5	39.5	118			
Surr: Phenol-d5	100		200.0		51.9	20.9	95.9			

Sample ID **lcsd-2433**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98784** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	38.2	99.4	5.88	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.2	35.5	108	2.54	20	
2-Chlorophenol	130	10	200.0	0	67.2	29.8	106	4.95	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.9	32.6	91.5	4.22	20	
2,4-Dinitrotoluene	96	10	100.0	0	96.4	44.7	112	10.4	20	
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.7	38.5	105	1.20	20	
4-Nitrophenol	97	10	200.0	0	48.5	11.6	73.1	13.7	20	
Pentachlorophenol	140	20	200.0	0	72.3	20.2	93	10.3	20	
Phenol	86	10	200.0	0	42.9	23	66.1	11.4	20	
Pyrene	93	10	100.0	0	93.3	40.1	101	9.79	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	6.51	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.6	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		53.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	91		100.0		90.6	41.3	116	0	0	
Surr: Nitrobenzene-d5	83		100.0		82.8	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.4	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1206669**

Hall Environmental Analysis Laboratory, Inc.

25-Jun-12

Client: Western Refining Southwest, Gallup
Project: 1st QTR Groundwater Sampling

Sample ID **MB-2433**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2433**	RunNo: **3511**	
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **99052**	Units: **µg/L**

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

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **MB-2433**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **99052** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
[illegible]oaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		82.8	44.2	126			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.7	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		78.3	39.5	118			
Surr: Phenol-d5	99		200.0		49.6	20.9	95.9			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **MB-2409**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2409**	RunNo: **3553**							
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **100184**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-2409**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2409**	RunNo: **3553**							
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **100185**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-2409**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **2409**	RunNo: **3553**							
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **100186**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	91.0	84.6	115.4			

Sample ID **LCSD-2409**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **2409**	RunNo: **3553**							
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **100187**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	91.8	84.6	115.4	0.829	20	

Sample ID **1206583-001CDUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **2409**	RunNo: **3553**							
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **100189**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	3.0	2.0						0.333	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206669**

25-Jun-12

Client: Western Refining Southwest, Gallup

Project: 1st QTR Groundwater Sampling

Sample ID **1206670-001C dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R3500**	RunNo: **3500**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **98377**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.13	1.68								H

Sample ID **1206736-005C dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R3500**	RunNo: **3500**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **98394**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.49	1.68								H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1206669

Received by/date: AG 06/15/12

Logged By: Michelle Garcia 6/15/2012 9:31:00 AM Michelle Garcia

Completed By: Michelle Garcia 6/15/2012 11:09:35 AM Michelle Garcia

Reviewed By: MG 06/15/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 1 (<2 or >12 unless noted)

Adjusted?

Checked by: MG

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 1st QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

Sample Temperature:

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		8015B (DRO/GRO)	8021B (BTEX)	VOCs	Metals (Total and Dissolved)				Air Bubbles (Y or N)
6/14/12	1050	W	Infl to AL-1	VARIOUS	VARIOUS	-001	X	X		X	X		X	X
			~~Infl to AL-2~~				X	X		X	X		X	X
			~~Infl to EP-1~~				X	X	X	X	X	X		X

Date: 6/15/12 Time: 0930 Relinquished by: Tom Reeves

Received by: Date: 06/15/12 Time: 0931

Date: Time: Relinquished by:

Received by: Date: Time:

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206537

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206537**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:50:00 PM
Lab ID: 1206537-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	7.6	1.0		mg/L	1	6/14/2012 6:01:08 PM
Motor Oil Range Organics (MRO)	5.1	5.0		mg/L	1	6/14/2012 6:01:08 PM
Surr: DNOP	122	61.3-164		%REC	1	6/14/2012 6:01:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/14/2012 11:20:00 AM
Surr: BFB	116	69.3-120		%REC	10	6/14/2012 11:20:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.015	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 6:56:59 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 6:56:59 PM
Iron	0.24	0.020		mg/L	1	6/28/2012 6:56:59 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 6:56:59 PM
Manganese	0.043	0.0020		mg/L	1	6/28/2012 6:56:59 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 6:56:59 PM
Zinc	0.096	0.010		mg/L	1	6/28/2012 6:56:59 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.018	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Chromium	ND	0.0060		mg/L	1	6/27/2012 7:48:06 PM
Copper	0.062	0.0060		mg/L	1	6/27/2012 7:48:06 PM
Iron	0.52	0.020	*	mg/L	1	6/27/2012 7:48:06 PM
Lead	0.0060	0.0050		mg/L	1	6/27/2012 7:48:06 PM
Manganese	0.046	0.0020		mg/L	1	6/27/2012 7:48:06 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 7:48:06 PM
Zinc	0.12	0.010		mg/L	1	6/27/2012 7:48:06 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0050		mg/L	5	6/29/2012 4:39:17 PM
Selenium	ND	0.0050		mg/L	5	6/29/2012 4:39:17 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 11:01:15 AM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0027	0.0025		mg/L	2.5	6/20/2012 7:32:55 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:36:50 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:32:55 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0020		mg/L	5	6/19/2012 5:15:04 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	270	2.0		mg/L	1	6/19/2012 6:12:00 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:50:00 PM
Lab ID: 1206537-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Toluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 1:37:31 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 1:37:31 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 1:37:31 AM
Acetone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromoform	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 1:37:31 AM
2-Butanone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Carbon disulfide	230	100		µg/L	10	6/15/2012 1:37:31 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Chloroform	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 1:37:31 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 1:37:31 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 1:37:31 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-001 **Matrix:** AQUEOUS

Client Sample ID: Pilot Eff
Collection Date: 6/12/2012 4:50:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 1:37:31 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 1:37:31 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Styrene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 1:37:31 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 1:37:31 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 1:37:31 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 1:37:31 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 1:37:31 AM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	10	6/15/2012 1:37:31 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	10	6/15/2012 1:37:31 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	10	6/15/2012 1:37:31 AM
Surr: Toluene-d8	93.4	70-130		%REC	10	6/15/2012 1:37:31 AM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS Eff
Collection Date: 6/12/2012 3:20:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	98	1.0		mg/L	1	6/14/2012 6:27:32 PM
Motor Oil Range Organics (MRO)	8.4	5.0		mg/L	1	6/14/2012 6:27:32 PM
Surr: DNOP	143	61.3-164		%REC	1	6/14/2012 6:27:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	130	25		mg/L	500	6/14/2012 11:50:41 AM
Surr: BFB	93.1	69.3-120		%REC	500	6/14/2012 11:50:41 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	46	5.0	*	mg/L	50	6/14/2012 3:02:20 AM
Chloride	430	25		mg/L	50	6/14/2012 3:02:20 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 2:51:06 AM
Bromide	1.5	1.0		mg/L	10	6/14/2012 2:51:06 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 2:51:06 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 2:51:06 AM
Sulfate	960	25		mg/L	50	6/14/2012 3:02:20 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.071	0.0020		mg/L	1	6/28/2012 7:06:38 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:06:38 PM
Calcium	83	1.0		mg/L	1	7/3/2012 9:58:04 AM
Chromium	0.0084	0.0060		mg/L	1	6/28/2012 7:06:38 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 7:06:38 PM
Iron	3.3	0.10	*	mg/L	5	6/28/2012 7:10:10 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:06:38 PM
Magnesium	22	1.0		mg/L	1	6/28/2012 7:06:38 PM
Manganese	0.12	0.0020	*	mg/L	1	6/28/2012 7:06:38 PM
Potassium	57	1.0		mg/L	1	6/28/2012 7:06:38 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:06:38 PM
Sodium	630	10		mg/L	10	7/3/2012 10:01:26 AM
Zinc	0.17	0.010		mg/L	1	6/28/2012 7:06:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.28	0.0020		mg/L	1	6/27/2012 7:55:49 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 7:55:49 PM
Chromium	0.012	0.0060		mg/L	1	6/27/2012 7:55:49 PM
Copper	0.036	0.0060		mg/L	1	6/27/2012 7:55:49 PM
Iron	11	0.40	*	mg/L	20	6/28/2012 3:24:35 PM
Lead	0.0078	0.0050		mg/L	1	6/27/2012 7:55:49 PM
Manganese	0.14	0.0020	*	mg/L	1	6/27/2012 7:55:49 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 7:55:49 PM
Zinc	0.49	0.010		mg/L	1	6/27/2012 7:55:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:20:00 PM
Lab ID: 1206537-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0050		mg/L	5	6/29/2012 4:41:09 PM
Selenium	0.015	0.0050		mg/L	5	6/29/2012 4:41:09 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 11:05:01 AM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0073	0.0025		mg/L	2.5	6/20/2012 7:44:46 PM
Selenium	0.0069	0.0025		mg/L	2.5	6/21/2012 3:38:42 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:44:46 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	0.0046	0.0020	*	mg/L	5	6/19/2012 5:16:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Aniline	600	50		µg/L	1	6/18/2012 10:52:24 AM
Anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 10:52:24 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Carbazole	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Chrysene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:20:00 PM
Lab ID: 1206537-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dimethylphenol	530	50		µg/L	1	6/18/2012 10:52:24 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Fluorene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Isophorone	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1-Methylnaphthalene	840	50		µg/L	1	6/18/2012 10:52:24 AM
2-Methylnaphthalene	1300	500		µg/L	10	6/18/2012 2:50:28 PM
2-Methylphenol	2000	500		µg/L	10	6/18/2012 2:50:28 PM
3+4-Methylphenol	4200	500		µg/L	10	6/18/2012 2:50:28 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Naphthalene	530	50		µg/L	1	6/18/2012 10:52:24 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 10:52:24 AM
Phenanthrene	200	50		µg/L	1	6/18/2012 10:52:24 AM
Phenol	7800	500		µg/L	10	6/18/2012 2:50:28 PM
Pyrene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Pyridine	ND	50		µg/L	1	6/18/2012 10:52:24 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 10:52:24 AM
Surr: 2,4,6-Tribromophenol	83.8	44.2-126		%REC	1	6/18/2012 10:52:24 AM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:20:00 PM
Lab ID: 1206537-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	65.5	37-114		%REC	1	6/18/2012 10:52:24 AM
Surr: 2-Fluorophenol	34.6	23.4-98		%REC	1	6/18/2012 10:52:24 AM
Surr: 4-Terphenyl-d14	82.1	41.3-116		%REC	1	6/18/2012 10:52:24 AM
Surr: Nitrobenzene-d5	79.3	39.5-118		%REC	1	6/18/2012 10:52:24 AM
Surr: Phenol-d5	54.3	20.9-95.9		%REC	1	6/18/2012 10:52:24 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	8900	100		µg/L	100	6/15/2012 2:34:08 AM
Toluene	14000	1000		µg/L	1000	6/15/2012 2:05:49 AM
Ethylbenzene	1400	100		µg/L	100	6/15/2012 2:34:08 AM
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,4-Trimethylbenzene	1600	100		µg/L	100	6/15/2012 2:34:08 AM
1,3,5-Trimethylbenzene	560	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Naphthalene	390	200		µg/L	100	6/15/2012 2:34:08 AM
1-Methylnaphthalene	ND	400		µg/L	100	6/15/2012 2:34:08 AM
2-Methylnaphthalene	480	400		µg/L	100	6/15/2012 2:34:08 AM
Acetone	7200	1000		µg/L	100	6/15/2012 2:34:08 AM
Bromobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromodichloromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromoform	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Bromomethane	ND	300		µg/L	100	6/15/2012 2:34:08 AM
2-Butanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Carbon disulfide	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Carbon Tetrachloride	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chloroethane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Chloroform	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Chloromethane	ND	300		µg/L	100	6/15/2012 2:34:08 AM
2-Chlorotoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
4-Chlorotoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
cis-1,2-DCE	ND	100		µg/L	100	6/15/2012 2:34:08 AM
cis-1,3-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Dibromochloromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Dibromomethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,3-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,4-Dichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Dichlorodifluoromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1-Dichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS Eff
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:20:00 PM
Lab ID: 1206537-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2-Dichloropropane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,3-Dichloropropane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
2,2-Dichloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
1,1-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Hexachlorobutadiene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
2-Hexanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Isopropylbenzene	140	100		µg/L	100	6/15/2012 2:34:08 AM
4-Isopropyltoluene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
4-Methyl-2-pentanone	ND	1000		µg/L	100	6/15/2012 2:34:08 AM
Methylene Chloride	ND	300		µg/L	100	6/15/2012 2:34:08 AM
n-Butylbenzene	100	100		µg/L	100	6/15/2012 2:34:08 AM
n-Propylbenzene	280	100		µg/L	100	6/15/2012 2:34:08 AM
sec-Butylbenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Styrene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
tert-Butylbenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Tetrachloroethene (PCE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
trans-1,2-DCE	ND	100		µg/L	100	6/15/2012 2:34:08 AM
trans-1,3-Dichloropropene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,1-Trichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,1,2-Trichloroethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Trichloroethene (TCE)	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Trichlorofluoromethane	ND	100		µg/L	100	6/15/2012 2:34:08 AM
1,2,3-Trichloropropane	ND	200		µg/L	100	6/15/2012 2:34:08 AM
Vinyl chloride	ND	100		µg/L	100	6/15/2012 2:34:08 AM
Xylenes, Total	8400	150		µg/L	100	6/15/2012 2:34:08 AM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	100	6/15/2012 2:34:08 AM
Surr: 4-Bromofluorobenzene	85.1	70-130		%REC	100	6/15/2012 2:34:08 AM
Surr: Dibromofluoromethane	121	69.8-130		%REC	100	6/15/2012 2:34:08 AM
Surr: Toluene-d8	95.1	70-130		%REC	100	6/15/2012 2:34:08 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	4300	0.010		µmhos/cm	1	6/14/2012 11:48:17 AM
SM4500-H+B: PH						Analyst: **DBD**
pH	8.40	1.68	H	pH units	1	6/14/2012 11:48:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 To EP-1
Collection Date: 6/12/2012 4:40:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	9.0	1.0		mg/L	1	6/14/2012 6:53:56 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 6:53:56 PM
Surr: DNOP	134	61.3-164		%REC	1	6/14/2012 6:53:56 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/14/2012 12:21:12 PM
Surr: BFB	98.2	69.3-120		%REC	10	6/14/2012 12:21:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	58	5.0	*	mg/L	50	6/14/2012 2:17:24 AM
Chloride	950	25		mg/L	50	6/14/2012 2:17:24 AM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 2:06:10 AM
Bromide	1.6	1.0		mg/L	10	6/14/2012 2:06:10 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 2:06:10 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 2:06:10 AM
Sulfate	1200	25		mg/L	50	6/14/2012 2:17:24 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.047	0.0020		mg/L	1	6/28/2012 7:13:58 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:13:58 PM
Calcium	100	10		mg/L	10	7/11/2012 11:07:42 AM
Chromium	0.0082	0.0060		mg/L	1	6/28/2012 7:13:58 PM
Copper	0.020	0.0060		mg/L	1	6/28/2012 7:13:58 PM
Iron	3.9	0.10	*	mg/L	5	6/28/2012 7:17:28 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:13:58 PM
Magnesium	34	1.0		mg/L	1	6/28/2012 7:13:58 PM
Manganese	0.11	0.0020	*	mg/L	1	6/28/2012 7:13:58 PM
Potassium	170	5.0		mg/L	5	6/28/2012 7:17:28 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:13:58 PM
Sodium	840	10		mg/L	10	7/11/2012 11:07:42 AM
Zinc	0.26	0.010		mg/L	1	6/28/2012 7:13:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Cadmium	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Chromium	ND	0.0060		mg/L	1	6/27/2012 8:02:24 PM
Copper	ND	0.0060		mg/L	1	6/27/2012 8:02:24 PM
Iron	ND	0.020		mg/L	1	6/27/2012 8:02:24 PM
Lead	ND	0.0050		mg/L	1	6/27/2012 8:02:24 PM
Manganese	ND	0.0020		mg/L	1	6/27/2012 8:02:24 PM
Silver	ND	0.0050		mg/L	1	6/27/2012 8:02:24 PM
Zinc	ND	0.010		mg/L	1	6/27/2012 8:02:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 To EP-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:40:00 PM
Lab ID: 1206537-003 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0081	0.0020		mg/L	2	6/29/2012 4:43:01 PM
Selenium	0.014	0.0020		mg/L	2	6/29/2012 4:43:01 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 1:24:08 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0088	0.0025		mg/L	2.5	6/20/2012 7:48:42 PM
Selenium	0.025	0.0025		mg/L	2.5	6/21/2012 3:40:34 PM
Uranium	ND	0.0025		mg/L	2.5	6/20/2012 7:48:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	0.0025	0.0010	*	mg/L	5	6/19/2012 5:18:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Aniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 11:22:16 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Carbazole	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Chrysene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 To EP-1
Collection Date: 6/12/2012 4:40:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Fluorene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Isophorone	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Naphthalene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 11:22:16 AM
Phenanthrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Phenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pyrene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Pyridine	ND	50		µg/L	1	6/18/2012 11:22:16 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:22:16 AM
Surr: 2,4,6-Tribromophenol	97.2	44.2-126		%REC	1	6/18/2012 11:22:16 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 To EP-1
Collection Date: 6/12/2012 4:40:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	77.4	37-114		%REC	1	6/18/2012 11:22:16 AM
Surr: 2-Fluorophenol	64.0	23.4-98		%REC	1	6/18/2012 11:22:16 AM
Surr: 4-Terphenyl-d14	88.1	41.3-116		%REC	1	6/18/2012 11:22:16 AM
Surr: Nitrobenzene-d5	84.1	39.5-118		%REC	1	6/18/2012 11:22:16 AM
Surr: Phenol-d5	51.2	20.9-95.9		%REC	1	6/18/2012 11:22:16 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Toluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 3:02:27 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 3:02:27 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 3:02:27 AM
Acetone	110	100		µg/L	10	6/15/2012 3:02:27 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromoform	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 3:02:27 AM
2-Butanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Carbon disulfide	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Chloroform	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 3:02:27 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 3:02:27 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-003 **Matrix:** AQUEOUS

Client Sample ID: AL-2 To EP-1
Collection Date: 6/12/2012 4:40:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 3:02:27 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 3:02:27 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Styrene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 3:02:27 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 3:02:27 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 3:02:27 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 3:02:27 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 3:02:27 AM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	10	6/15/2012 3:02:27 AM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	10	6/15/2012 3:02:27 AM
Surr: Dibromofluoromethane	119	69.8-130		%REC	10	6/15/2012 3:02:27 AM
Surr: Toluene-d8	98.3	70-130		%REC	10	6/15/2012 3:02:27 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206537-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/12/2012 9:26:00 AM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:30:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:30:50 AM
Acetone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 3:30:50 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:26:00 AM
Lab ID: 1206537-004
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 3:30:50 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 3:30:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 3:30:50 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 3:30:50 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 3:30:50 AM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	6/15/2012 3:30:50 AM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	6/15/2012 3:30:50 AM
Surr: Dibromofluoromethane	117	69.8-130		%REC	1	6/15/2012 3:30:50 AM
Surr: Toluene-d8	96.8	70-130		%REC	1	6/15/2012 3:30:50 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206537-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:58:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 3:58:59 AM
Acetone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206537-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 3:58:59 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 3:58:59 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 3:58:59 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 3:58:59 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 3:58:59 AM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	6/15/2012 3:58:59 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/15/2012 3:58:59 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/15/2012 3:58:59 AM
Surr: Toluene-d8	99.3	70-130		%REC	1	6/15/2012 3:58:59 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

Date Received : June 15, 2012
Description :

ESC Sample # : L580582-01

Sample ID : 1206537-001F PILOT EFF

Site ID :

Project # :

Collected By :
Collection Date : 06/12/12 16:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	690	10.	mg/l	410.4	06/20/12	1

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

Reported: 06/21/12 09:17 Printed: 06/21/12 09:17

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L580582

June 21, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG598723	06/20/12 14:48

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	1400	1400	1.42	5	L580263-01	WG598723
COD	mg/l	7600	7800	2.47	5	L580219-01	WG598723

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	229.	99.6	90-110	WG598723

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	230.	229.	100.	90-110	0.436	5	WG598723

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	626.	220.	400	102.	90-110	L580499-01	WG598723

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	622.	626.	100.	90-110	0.641	5	L580499-01	WG598723

Batch number /Run number / Sample number cross reference

WG598723: R2219533: L580582-01

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]ium	0.46	0.0020	0.5000	0	92.8	85	115			
[illegible]ium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**
Prep Date: Analysis Date: **6/28/2012** SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	54	1.0	50.00	5.206	98.2	70	130			
Silver	0.091	0.0050	0.1000	0	91.0	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID **1206170-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**
Prep Date: Analysis Date: **6/28/2012** SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Potassium	54	1.0	50.00	5.206	97.4	70	130	0.708	20	
Silver	0.092	0.0050	0.1000	0	91.8	70	130	0.864	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3866** RunNo: **3866**
Prep Date: Analysis Date: **7/3/2012** SeqNo: **109873** Units: **mg/L**

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

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3866** RunNo: **3866**
Prep Date: Analysis Date: **7/3/2012** SeqNo: **109874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	53	1.0	50.00	0	105	85	115			
Sodium	49	1.0	50.00	0	98.0	85	115			

Sample ID **1206170-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3866** RunNo: **3866**
Prep Date: Analysis Date: **7/3/2012** SeqNo: **109902** Units: **mg/L**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3866**	RunNo: **3866**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	104.6	102	70	130			

Sample ID **1206170-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3866**	RunNo: **3866**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109903** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	104.6	102	70	130	0.0767	20	

Sample ID **1206572-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **112982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID **1206572-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
nt ID: **BatchQC**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **112983** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113009** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113010** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	57	1.0	50.00	0	113	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2410**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2410**	RunNo: **3694**
Prep Date: **6/15/2012**	Analysis Date: **6/26/2012**	SeqNo: **104385** Units: **mg/L**

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

Sample ID **LCS-2410**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2410**	RunNo: **3694**
Prep Date: **6/15/2012**	Analysis Date: **6/26/2012**	SeqNo: **104386** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.0	85	115			
Cadmium	0.50	0.0020	0.5000	0.0005700	98.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Iron	0.47	0.020	0.5000	0	93.8	85	115			
Lead	0.47	0.0050	0.5000	0	93.8	85	115			
Manganese	0.47	0.0020	0.5000	0.0002800	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.2	85	115			

Sample ID **MB-2410**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2410**	RunNo: **3710**
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105341** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID **LCS-2410**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2410**	RunNo: **3710**
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105342** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.51	0.0060	0.5000	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2410**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2410**	RunNo: **3586**
Prep Date: **6/15/2012**	Analysis Date: **6/20/2012**	SeqNo: **101231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **MB-2410**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2410**	RunNo: **3597**
Prep Date: **6/15/2012**	Analysis Date: **6/21/2012**	SeqNo: **101631** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2463**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2463**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1206661-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID **1206661-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95995** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
...gen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
...phorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1206484-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115			

Sample ID **1206484-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	

Qualifiers:

- ... Value exceeds Maximum Contaminant Level.
- ... Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206484-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Sample ID **1206538-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID **1206538-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2395**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID **LCS-2395**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID **LCSD-2395**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

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- Value above quantitation range
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID **1206537-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **Pilot Eff** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID **1206537-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **Pilot Eff** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96560** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID **B1** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **99408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
...on disulfide	ND	10								
...on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- ...Value exceeds Maximum Contaminant Level.
- ...Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID **1206442-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96911** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID **1206442-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96912** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206537

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
?-Trichloropropane	ND	2.0								
chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96945** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206544-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96946** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID **1206544-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96947** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9	
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5	
Chlorobenzene	170	10	200.0	0	86.7	70	130	6.59	17.7	
1,1-Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5	
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9	
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0	
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**	
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	35								
4-Bromophenyl phenyl ether	ND	10								
benzyl phthalate	ND	10								
azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

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- Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1206537**

Hall Environmental Analysis Laboratory, Inc.

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**	
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Qualifiers:

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- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **lcs-2383**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98781** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID **lcsd-2383**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98783** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2381**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2381**	RunNo: **3509**							
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98741**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-2381**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **2381**	RunNo: **3509**							
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98742**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-2381**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **2381**	RunNo: **3509**							
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98743**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.2	84.6	115.4			

Sample ID **LCSD-2381**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **2381**	RunNo: **3509**							
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98744**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	86.7	84.6	115.4	0.581	20	

Sample ID **1206501-001ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **2381**	RunNo: **3509**							
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98746**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	28	2.0						0.108	20	

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206559-001B dup**	SampType: **DUP**		TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R3451**		RunNo: **3451**					
Prep Date:		Analysis Date: **6/14/2012**		SeqNo: **96546**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	190	0.010						0.417	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206537**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206559-001B dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**	
Client ID: **BatchQC**	Batch ID: **R3451**	RunNo: **3451**	
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96532**	Units: **pH units**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.87	1.68								H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1206537**

Received by/date: 06/13/12

Logged By: **Ashley Gallegos** **6/13/2012 1:35:00 PM**

Completed By: **Ashley Gallegos** **6/13/2012 2:28:53 PM**

Reviewed By: 06/13/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes ✔	No	NA

Added 1mL HNO_3 to -001E and -002F for acceptable pH. MG

11.	VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 9
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted? Yes
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: MG

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes	No	NA ✔

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice:

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		Analysis Request: 8015B (GRO/DRO)	Volatiles (8260B/Method 524.2)						VOC							Air Bubbles (Y or N)
6/12/12	1650	WW	Pilot Eff	VARIOUS	VARIOUS	-001	X	X	X	X											
6/12/12	1520	WW	NAPIS Eff			-002	X	X	X		X	X									
6/12/12	1640	WW	AL-2 to EP-1			-003	X	X	X		X		X								
6/12/12	0926		FIELD BLANK	3	HCL	-004								X							
			TRIP BLANK			-005								X							

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/13/12	0800	Tom Skinner		6-13-12	0800
6-13-12	1:35			06/13/12	1335

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206544

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206544-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 6/12/2012 3:45:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	9.4	1.0		mg/L	1	6/14/2012 7:20:07 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 7:20:07 PM
Surr: DNOP	134	61.3-164		%REC	1	6/14/2012 7:20:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.50	0.50		mg/L	10	6/18/2012 5:29:58 PM
Surr: BFB	105	69.3-120		%REC	10	6/18/2012 5:29:58 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	640	25		mg/L	50	6/14/2012 3:47:16 AM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	130	2.0		mg/L	1	6/19/2012 6:12:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Aniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Azobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Benzoic acid	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 11:51:54 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Carbazole	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Chrysene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dibenzofuran	ND	50		µg/L	1	6/18/2012 11:51:54 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206544-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 6/12/2012 3:45:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Fluoranthene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Fluorene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Isophorone	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Naphthalene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 11:51:54 AM
Phenanthrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Phenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pyrene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
Pyridine	ND	50		µg/L	1	6/18/2012 11:51:54 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 11:51:54 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to AL-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:45:00 PM
Lab ID: 1206544-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2,4,6-Tribromophenol	104	44.2-126		%REC	1	6/18/2012 11:51:54 AM
Surr: 2-Fluorobiphenyl	84.1	37-114		%REC	1	6/18/2012 11:51:54 AM
Surr: 2-Fluorophenol	69.8	23.4-98		%REC	1	6/18/2012 11:51:54 AM
Surr: 4-Terphenyl-d14	92.4	41.3-116		%REC	1	6/18/2012 11:51:54 AM
Surr: Nitrobenzene-d5	92.4	39.5-118		%REC	1	6/18/2012 11:51:54 AM
Surr: Phenol-d5	54.6	20.9-95.9		%REC	1	6/18/2012 11:51:54 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Toluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Ethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Naphthalene	ND	20		µg/L	10	6/15/2012 4:26:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 4:26:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	6/15/2012 4:26:59 AM
Acetone	1100	100		µg/L	10	6/15/2012 4:26:59 AM
Bromobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromodichloromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromoform	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Bromomethane	ND	30		µg/L	10	6/15/2012 4:26:59 AM
2-Butanone	210	100		µg/L	10	6/15/2012 4:26:59 AM
Carbon disulfide	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chloroethane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Chloroform	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Chloromethane	ND	30		µg/L	10	6/15/2012 4:26:59 AM
2-Chlorotoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Chlorotoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
cis-1,2-DCE	ND	10		µg/L	10	6/15/2012 4:26:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Dibromochloromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Dibromomethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to AL-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 3:45:00 PM
Lab ID: 1206544-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
2-Hexanone	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Isopropylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	6/15/2012 4:26:59 AM
Methylene Chloride	ND	30		µg/L	10	6/15/2012 4:26:59 AM
n-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
n-Propylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
sec-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Styrene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
tert-Butylbenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
trans-1,2-DCE	ND	10		µg/L	10	6/15/2012 4:26:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	6/15/2012 4:26:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	6/15/2012 4:26:59 AM
Vinyl chloride	ND	10		µg/L	10	6/15/2012 4:26:59 AM
Xylenes, Total	ND	15		µg/L	10	6/15/2012 4:26:59 AM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	10	6/15/2012 4:26:59 AM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	10	6/15/2012 4:26:59 AM
Surr: Dibromofluoromethane	120	69.8-130		%REC	10	6/15/2012 4:26:59 AM
Surr: Toluene-d8	95.0	70-130		%REC	10	6/15/2012 4:26:59 AM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.96	1.68	H	pH units	1	6/14/2012 11:52:25 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To EP-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:00:00 PM
Lab ID: 1206544-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	12	1.0		mg/L	1	6/14/2012 7:45:59 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 7:45:59 PM
Surr: DNOP	131	61.3-164		%REC	1	6/14/2012 7:45:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	6/18/2012 7:01:59 PM
Surr: BFB	86.5	69.3-120		%REC	10	6/18/2012 7:01:59 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	65	5.0	*	mg/L	50	6/14/2012 3:24:49 AM
Chloride	980	50		mg/L	100	6/27/2012 11:27:30 PM
Nitrogen, Nitrite (As N)	ND	1.0		mg/L	10	6/14/2012 3:13:34 AM
Bromide	1.9	1.0		mg/L	10	6/14/2012 3:13:34 AM
Nitrogen, Nitrate (As N)	ND	1.0		mg/L	10	6/14/2012 3:13:34 AM
Phosphorus, Orthophosphate (As P)	ND	5.0		mg/L	10	6/14/2012 3:13:34 AM
Sulfate	1400	25		mg/L	50	6/14/2012 3:24:49 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.039	0.0020		mg/L	1	6/28/2012 7:21:17 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 7:21:17 PM
Calcium	94	20		mg/L	20	7/11/2012 11:10:39 AM
Chromium	ND	0.0060		mg/L	1	6/28/2012 7:21:17 PM
Copper	0.0092	0.0060		mg/L	1	6/28/2012 7:21:17 PM
Iron	2.5	0.10	*	mg/L	5	6/28/2012 7:24:48 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 7:21:17 PM
Magnesium	33	1.0		mg/L	1	6/28/2012 7:21:17 PM
Manganese	0.11	0.0020	*	mg/L	1	6/28/2012 7:21:17 PM
Potassium	170	5.0		mg/L	5	6/28/2012 7:24:48 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 7:21:17 PM
Sodium	850	20		mg/L	20	7/11/2012 11:10:39 AM
Zinc	0.14	0.010		mg/L	1	6/28/2012 7:21:17 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.10	0.0020		mg/L	1	6/28/2012 12:14:39 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 12:14:39 PM
Chromium	0.0088	0.0060		mg/L	1	6/28/2012 12:14:39 PM
Copper	0.020	0.0060		mg/L	1	6/28/2012 12:14:39 PM
Iron	5.3	0.20	*	mg/L	10	6/28/2012 3:34:32 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 12:14:39 PM
Manganese	0.12	0.0020	*	mg/L	1	6/28/2012 12:14:39 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 12:14:39 PM
Zinc	0.31	0.010		mg/L	1	6/28/2012 12:14:39 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206544-002 **Matrix:** AQUEOUS

Client Sample ID: Infl To EP-1
Collection Date: 6/12/2012 4:00:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0068	0.0020		mg/L	2	6/29/2012 4:46:45 PM
Selenium	0.015	0.0020		mg/L	2	6/29/2012 4:46:45 PM
Uranium	ND	0.0020		mg/L	2	7/3/2012 11:14:26 AM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0087	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
Selenium	0.023	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 4:52:17 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	0.0025	0.0010	*	mg/L	5	6/19/2012 5:23:55 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	85	2.0		mg/L	1	6/19/2012 6:12:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Acenaphthylene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Aniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Azobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benz(a)anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(a)pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Benzoic acid	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Benzyl alcohol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Bis(2-ethylhexyl)phthalate	ND	180		µg/L	1	6/18/2012 12:21:33 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Butyl benzyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Carbazole	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chloroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Chloronaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Chlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Chrysene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Di-n-butyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Di-n-octyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	6/18/2012 12:21:33 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To EP-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:00:00 PM
Lab ID: 1206544-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Dibenzofuran	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Diethyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Dimethyl phthalate	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dichlorophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dimethylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dinitrophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Fluoranthene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Fluorene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorobutadiene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Hexachloroethane	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Isophorone	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Methylnaphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3+4-Methylphenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Naphthalene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Nitroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
3-Nitroaniline	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Nitroaniline	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Nitrobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2-Nitrophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
4-Nitrophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pentachlorophenol	ND	100		µg/L	1	6/18/2012 12:21:33 PM
Phenanthrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Phenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pyrene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Pyridine	ND	50		µg/L	1	6/18/2012 12:21:33 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	6/18/2012 12:21:33 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206544-002 **Matrix:** AQUEOUS

Client Sample ID: Infl To EP-1
Collection Date: 6/12/2012 4:00:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4,6-Trichlorophenol	ND	50		µg/L	1	6/18/2012 12:21:33 PM
Surr: 2,4,6-Tribromophenol	92.1	44.2-126		%REC	1	6/18/2012 12:21:33 PM
Surr: 2-Fluorobiphenyl	66.0	37-114		%REC	1	6/18/2012 12:21:33 PM
Surr: 2-Fluorophenol	58.7	23.4-98		%REC	1	6/18/2012 12:21:33 PM
Surr: 4-Terphenyl-d14	78.7	41.3-116		%REC	1	6/18/2012 12:21:33 PM
Surr: Nitrobenzene-d5	74.9	39.5-118		%REC	1	6/18/2012 12:21:33 PM
Surr: Phenol-d5	46.3	20.9-95.9		%REC	1	6/18/2012 12:21:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:50:38 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:50:38 AM
Acetone	15	10		µg/L	1	6/15/2012 5:50:38 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl To EP-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 4:00:00 PM
Lab ID: 1206544-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 5:50:38 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 5:50:38 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 5:50:38 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 5:50:38 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 5:50:38 AM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	6/15/2012 5:50:38 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/15/2012 5:50:38 AM
Surr: Dibromofluoromethane	121	69.8-130		%REC	1	6/15/2012 5:50:38 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	6/15/2012 5:50:38 AM
SM4500-H+B: PH						Analyst: **DBD**
pH	7.98	1.68	H	pH units	1	6/14/2012 11:56:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Equip Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 8:15:00 AM
Lab ID: 1206544-003
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:18:42 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:18:42 AM
Acetone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 6:18:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Equip Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 8:15:00 AM
Lab ID: 1206544-003
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 6:18:42 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 6:18:42 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 6:18:42 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 6:18:42 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 6:18:42 AM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	6/15/2012 6:18:42 AM
Surr: 4-Bromofluorobenzene	98.2	70-130		%REC	1	6/15/2012 6:18:42 AM
Surr: Dibromofluoromethane	116	69.8-130		%REC	1	6/15/2012 6:18:42 AM
Surr: Toluene-d8	94.8	70-130		%REC	1	6/15/2012 6:18:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 8:15:00 AM
Lab ID: 1206544-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:46:57 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 6:46:57 AM
Acetone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 6:46:57 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 8:15:00 AM
Lab ID: 1206544-004
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 6:46:57 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 6:46:57 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 6:46:57 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 6:46:57 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 6:46:57 AM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	1	6/15/2012 6:46:57 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	6/15/2012 6:46:57 AM
Surr: Dibromofluoromethane	118	69.8-130		%REC	1	6/15/2012 6:46:57 AM
Surr: Toluene-d8	99.0	70-130		%REC	1	6/15/2012 6:46:57 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206544-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:15:14 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:15:14 AM
Acetone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 7:15:14 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206544-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 7:15:14 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 7:15:14 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 7:15:14 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 7:15:14 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 7:15:14 AM
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1	6/15/2012 7:15:14 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/15/2012 7:15:14 AM
Surr: Dibromofluoromethane	116	69.8-130		%REC	1	6/15/2012 7:15:14 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	6/15/2012 7:15:14 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

Date Received : June 15, 2012
Description :

ESC Sample # : L580584-01

Sample ID : 1206544-001F INF TO AL-2

Site ID :

Project # :

Collected By :
Collection Date : 06/12/12 15:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	610	10.	mg/l	410.4	06/20/12	1

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

Reported: 06/21/12 09:17 Printed: 06/21/12 09:17

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 21, 2012

ESC Sample # : L580584-02

Date Received : June 15, 2012
Description :

Site ID :

Sample ID : 1206544-002H INF TO EP-1

Project # :

Collected By :
Collection Date : 06/12/12 16:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	490	10.	mg/l	410.4	06/20/12	1

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

Reported: 06/21/12 09:17 Printed: 06/21/12 09:17

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L580584

June 21, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG598723	06/20/12 14:48

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	1400	1400	1.42	5	L580263-01	WG598723
COD	mg/l	7600	7800	2.47	5	L580219-01	WG598723

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	229.	99.6	90-110	WG598723

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	230.	229.	100.	90-110	0.436	5	WG598723

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	626.	220.	400	102.	90-110	L580499-01	WG598723

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	622.	626.	100.	90-110	0.641	5	L580499-01	WG598723

Batch number /Run number / Sample number cross reference

WG598723: R2219533: L580584-01 02

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

QC SUMMARY REPORT

WO#: **1206544**

Hall Environmental Analysis Laboratory, Inc.

12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Potassium	49	1.0	50.00	0	97.5	85	115			
Silver	0.097	0.0050	0.1000	0	96.7	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**

Prep Date: Analysis Date: **6/28/2012** SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	54	1.0	50.00	5.206	98.2	70	130			
Silver	0.091	0.0050	0.1000	0	91.0	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID **1206170-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**

Prep Date: Analysis Date: **6/28/2012** SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
[illegible]ium	54	1.0	50.00	5.206	97.4	70	130	0.708	20	
Silver	0.092	0.0050	0.1000	0	91.8	70	130	0.864	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **1206572-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **112982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID **1206572-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **112983** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **113009** Units: **mg/L**

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

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113009** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113010** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	57	1.0	50.00	0	113	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2411**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
ium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206544

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**	
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3745**	
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105997**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2463**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2463**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1206661-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID **1206661-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **95995** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **95996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1206484-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115			

Sample ID **1206484-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206484-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Sample ID **1206538-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID **1206538-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R3741** RunNo: **3741**

Prep Date: Analysis Date: **6/27/2012** SeqNo: **105798** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R3741** RunNo: **3741**

Prep Date: Analysis Date: **6/27/2012** SeqNo: **105799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206B68-001DMS**	SampType: **MS**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **R3741**			RunNo: **3741**					
Prep Date:		Analysis Date: **6/28/2012**			SeqNo: **105849**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	0.50	5.000	9.623	106	87.8	111			

Sample ID	**1206B68-001DMSD**	SampType: **MSD**			TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **R3741**			RunNo: **3741**					
Prep Date:		Analysis Date: **6/28/2012**			SeqNo: **105850**		Units: **mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		15	0.50	5.000	9.623	106	87.8	111	0.196	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2395**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID **LCS-2395**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID **LCSD-2395**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
r: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **B5**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBW**	Batch ID: **R3518**	RunNo: **3518**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **99056**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.2	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSW**	Batch ID: **R3518**	RunNo: **3518**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **99057**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.2	101	123			S
Surr: BFB	18		20.00		92.0	69.3	120			

Sample ID **1206544-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **Infl to AL-2**	Batch ID: **R3518**	RunNo: **3518**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **99068**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.3	0.50	5.000	0.5000	96.7	75.4	121			
Surr: BFB	190		200.0		92.7	69.3	120			

Sample ID **1206544-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **Infl to AL-2**	Batch ID: **R3518**	RunNo: **3518**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **99069**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.1	0.50	5.000	0.5000	92.2	75.4	121	4.29	10.5	
Surr: BFB	260		200.0		130	69.3	120	0	0	S

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBW**	Batch ID: **R3557**	RunNo: **3557**							
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100247**	Units: **%REC**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		99.3	69.3	120			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSW**	Batch ID: **R3557**	RunNo: **3557**							
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100248**	Units: **%REC**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	21		20.00		107	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206669-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100405** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1200		1000		118	69.3	120			

Sample ID **1206669-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3557**	RunNo: **3557**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **100406** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		104	69.3	120	0	0	

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID **1206442-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96911** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID **1206442-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96912** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
form	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96945** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206544-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Infl to AL-2**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96946** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID **1206544-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **Infl to AL-2**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96947** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9	
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5	
benzene	170	10	200.0	0	86.7	70	130	6.59	17.7	
Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5	
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9	
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0	
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**	
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	35								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
aniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **lcs-2383** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **2383** RunNo: **3511**

Prep Date: **6/14/2012** Analysis Date: **6/18/2012** SeqNo: **98781** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID **lcsd-2383** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **2383** RunNo: **3511**

Prep Date: **6/14/2012** Analysis Date: **6/18/2012** SeqNo: **98783** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2381**	SampType: **MBLK**	TestCode: **SM5210B: BOD**
Client ID: **PBW**	Batch ID: **2381**	RunNo: **3509**
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98741** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-2381**	SampType: **MBLK**	TestCode: **SM5210B: BOD**
Client ID: **PBW**	Batch ID: **2381**	RunNo: **3509**
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98742** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-2381**	SampType: **LCS**	TestCode: **SM5210B: BOD**
Client ID: **LCSW**	Batch ID: **2381**	RunNo: **3509**
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98743** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.2	84.6	115.4			

Sample ID **LCSD-2381**	SampType: **LCSD**	TestCode: **SM5210B: BOD**
Client ID: **LCSS02**	Batch ID: **2381**	RunNo: **3509**
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98744** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	86.7	84.6	115.4	0.581	20	

Sample ID **1206501-001ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**
Client ID: **BatchQC**	Batch ID: **2381**	RunNo: **3509**
Prep Date: **6/14/2012**	Analysis Date: **6/19/2012**	SeqNo: **98746** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	28	2.0						0.108	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206544**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206559-001B dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R3451**		RunNo: **3451**					
Prep Date:		Analysis Date: **6/14/2012**		SeqNo: **96532**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.87	1.68								H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1206544**

Received by/date:

Logged By: **Ashley Gallegos** **6/13/2012 1:35:00 PM** AG

Completed By: **Ashley Gallegos** **6/13/2012 2:55:49 PM** AG

Reviewed By: MG / AG 06/13/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes	No ✔	NA
11. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 5
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: MG

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice:

Sample Temperature:

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		Analysis Request: BTEX/MTBE/TMB's (8021)	TPH (Gas only)	TPH (Method 8015B)	EDB (Method 504.1)	PAH's (8310 or 8270SIM)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8260B (VOC)							Air Bubbles (Y or N)
~~6/12/12~~	~~1545~~	~~WW~~	~~Infl to AL-1~~				X	X		X	X		X	X							
6/12/12	1545	WW	Infl to AL-2	VARIOUS	VARIOUS	-001	X	X		X	X		X	X							
6/12/12	1600	WW	Infl to EP-1	VARIOUS	VARIOUS	-002	X	X	X	X	X	X		X							
6/12/12	0815		EQUIP. BLANK			-003															
6/12/12	0926		FIELD BLANK	3	HCL	-004									X						
			TRIP BLANK			-005									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/13/12	0830	Tom Cleaves		6-13-12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time
6-13-12	1:30			06/13/12	1335

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206546

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206546**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 2:20:00 PM
Lab ID: 1206546-001
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 8:11:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 8:11:52 PM
Surr: DNOP	130	61.3-164		%REC	1	6/14/2012 8:11:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	6/14/2012 12:51:39 PM
Surr: BFB	102	69.3-120		%REC	5	6/14/2012 12:51:39 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	3.4	0.50		mg/L	5	6/14/2012 3:58:30 AM
Chloride	1300	50		mg/L	100	6/25/2012 3:42:24 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 3:58:30 AM
Bromide	3.5	0.50		mg/L	5	6/14/2012 3:58:30 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/14/2012 3:58:30 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 3:58:30 AM
Sulfate	140	2.5		mg/L	5	6/14/2012 3:58:30 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	1.1	0.010		mg/L	5	6/28/2012 8:54:01 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 8:50:41 PM
Calcium	290	5.0		mg/L	5	6/28/2012 8:54:01 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 8:50:41 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 8:50:41 PM
Iron	4.0	0.10	*	mg/L	5	6/28/2012 8:54:01 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 8:50:41 PM
Magnesium	68	1.0		mg/L	1	6/28/2012 8:50:41 PM
Manganese	2.9	0.010	*	mg/L	5	6/28/2012 8:54:01 PM
Potassium	2.9	1.0		mg/L	1	7/5/2012 5:31:21 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:40:09 PM
Sodium	980	10		mg/L	10	7/5/2012 5:34:42 PM
Zinc	0.016	0.010		mg/L	1	6/28/2012 8:50:41 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.84	0.0020		mg/L	1	6/28/2012 12:21:24 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 12:21:24 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 12:21:24 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 12:21:24 PM
Iron	8.7	0.20	*	mg/L	10	6/28/2012 3:38:14 PM
Lead	0.011	0.0050		mg/L	1	6/28/2012 12:21:24 PM
Manganese	2.7	0.010	*	mg/L	5	6/28/2012 12:26:22 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 12:21:24 PM
Zinc	0.019	0.010		mg/L	1	6/28/2012 12:21:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 2:20:00 PM
Lab ID: 1206546-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.054	0.0020	*	mg/L	2	6/29/2012 4:48:37 PM
Selenium	0.0099	0.0020		mg/L	2	6/29/2012 4:48:37 PM
Uranium	0.0055	0.0020		mg/L	2	7/3/2012 11:16:18 AM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.066	0.0025	*	mg/L	2.5	6/27/2012 4:54:09 PM
Selenium	0.0093	0.0025		mg/L	2.5	6/27/2012 4:54:09 PM
Uranium	0.011	0.0025		mg/L	2.5	6/27/2012 4:54:09 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:25:41 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	5.3	1.0		µg/L	1	6/15/2012 7:43:36 AM
Toluene	1.4	1.0		µg/L	1	6/15/2012 7:43:36 AM
Ethylbenzene	2.5	1.0		µg/L	1	6/15/2012 7:43:36 AM
Methyl tert-butyl ether (MTBE)	40	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,4-Trimethylbenzene	4.9	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
1-Methylnaphthalene	6.3	4.0		µg/L	1	6/15/2012 7:43:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 7:43:36 AM
Acetone	11	10		µg/L	1	6/15/2012 7:43:36 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206546-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 6/12/2012 2:20:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 7:43:36 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 7:43:36 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
n-Propylbenzene	1.6	1.0		µg/L	1	6/15/2012 7:43:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 7:43:36 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 7:43:36 AM
Xylenes, Total	9.4	1.5		µg/L	1	6/15/2012 7:43:36 AM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	6/15/2012 7:43:36 AM
Surr: 4-Bromofluorobenzene	94.7	70-130		%REC	1	6/15/2012 7:43:36 AM
Surr: Dibromofluoromethane	120	69.8-130		%REC	1	6/15/2012 7:43:36 AM
Surr: Toluene-d8	93.5	70-130		%REC	1	6/15/2012 7:43:36 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 1:45:00 PM
Lab ID: 1206546-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:03:35 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:03:35 PM
Surr: DNOP	138	61.3-164		%REC	1	6/14/2012 9:03:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/14/2012 1:22:21 PM
Surr: BFB	94.6	69.3-120		%REC	5	6/14/2012 1:22:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	6/14/2012 1:22:21 PM
Benzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Toluene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Ethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Xylenes, Total	ND	10		µg/L	5	6/14/2012 1:22:21 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:22:21 PM
Surr: 4-Bromofluorobenzene	90.1	55-140		%REC	5	6/14/2012 1:22:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	3.5	0.50		mg/L	5	6/14/2012 4:20:58 AM
Chloride	1200	50		mg/L	100	6/25/2012 3:53:38 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 4:20:58 AM
Bromide	4.0	0.50		mg/L	5	6/14/2012 4:20:58 AM
Nitrogen, Nitrate (As N)	24	0.50	*	mg/L	5	6/14/2012 4:20:58 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 4:20:58 AM
Sulfate	1400	50		mg/L	100	6/25/2012 3:53:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Calcium	420	10		mg/L	10	6/28/2012 12:33:36 PM
Magnesium	79	1.0		mg/L	1	6/28/2012 12:29:32 PM
Potassium	2.8	1.0		mg/L	1	6/28/2012 12:29:32 PM
Sodium	1400	20		mg/L	20	7/2/2012 8:05:21 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206546-003 **Matrix:** AQUEOUS

Client Sample ID: GWM-3
Collection Date: 6/12/2012 2:45:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:29:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:29:00 PM
Surr: DNOP	133	61.3-164		%REC	1	6/14/2012 9:29:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	6/14/2012 1:53:14 PM
Surr: BFB	109	69.3-120		%REC	5	6/14/2012 1:53:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	6/14/2012 1:53:14 PM
Benzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Toluene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Ethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Xylenes, Total	ND	10		µg/L	5	6/14/2012 1:53:14 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	6/14/2012 1:53:14 PM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	5	6/14/2012 1:53:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	4.4	0.50	*	mg/L	5	6/14/2012 5:05:53 AM
Chloride	1400	50		mg/L	100	6/25/2012 4:04:52 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 5:05:53 AM
Bromide	3.5	0.50		mg/L	5	6/14/2012 5:05:53 AM
Nitrogen, Nitrate (As N)	6.2	0.50		mg/L	5	6/14/2012 5:05:53 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 5:05:53 AM
Sulfate	1400	50		mg/L	100	6/25/2012 4:04:52 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Calcium	400	10		mg/L	10	6/28/2012 12:40:57 PM
Magnesium	78	10		mg/L	10	6/28/2012 12:40:57 PM
Potassium	ND	10		mg/L	10	6/28/2012 12:40:57 PM
Sodium	1300	20		mg/L	20	7/2/2012 8:13:06 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206546-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/12/2012 9:26:00 AM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:11:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:11:50 AM
Acetone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 8:11:50 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:26:00 AM
Lab ID: 1206546-004
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 8:11:50 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 8:11:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 8:11:50 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 8:11:50 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 8:11:50 AM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	6/15/2012 8:11:50 AM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	6/15/2012 8:11:50 AM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 8:11:50 AM
Surr: Toluene-d8	95.5	70-130		%REC	1	6/15/2012 8:11:50 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206546-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:40:05 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 8:40:05 AM
Acetone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Bromobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromoform	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Bromomethane	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
2-Butanone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Carbon disulfide	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chloroethane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Chloroform	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Chloromethane	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Dibromomethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
2-Hexanone	ND	10		µg/L	1	6/15/2012 8:40:05 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206546-005
Matrix: TRIP BLANK
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/15/2012 8:40:05 AM
Methylene Chloride	ND	3.0		µg/L	1	6/15/2012 8:40:05 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Styrene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/15/2012 8:40:05 AM
Vinyl chloride	ND	1.0		µg/L	1	6/15/2012 8:40:05 AM
Xylenes, Total	ND	1.5		µg/L	1	6/15/2012 8:40:05 AM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	1	6/15/2012 8:40:05 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	6/15/2012 8:40:05 AM
Surr: Dibromofluoromethane	115	69.8-130		%REC	1	6/15/2012 8:40:05 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	6/15/2012 8:40:05 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0	92.8	85	115			
[illegible]um	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
[illegible]um	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**

Prep Date: Analysis Date: **6/28/2012** SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R3875** RunNo: **3875**

Prep Date: Analysis Date: **7/5/2012** SeqNo: **110339** Units: **mg/L**

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

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R3875** RunNo: **3875**

Prep Date: Analysis Date: **7/5/2012** SeqNo: **110340** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID **1206572-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3875** RunNo: **3875**

Prep Date: Analysis Date: **7/5/2012** SeqNo: **110372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	56	1.0	50.00	6.798	99.0	70	130			

Sample ID **1206572-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3875** RunNo: **3875**

Prep Date: Analysis Date: **7/5/2012** SeqNo: **110373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **1206982-003GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID **1206982-003GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **2411** RunNo: **3742**

Prep Date: **6/15/2012** Analysis Date: **6/28/2012** SeqNo: **105873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-2411** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **2411** RunNo: **3742**

Prep Date: **6/15/2012** Analysis Date: **6/28/2012** SeqNo: **105874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Calcium	45	1.0	50.00	0	90.2	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Magnesium	46	1.0	50.00	0	92.8	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Potassium	45	1.0	50.00	0	89.9	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Sodium	46	1.0	50.00	0	92.2	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3745**
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105997** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2463**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2463**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1206661-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID **1206661-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95995** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1206484-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115			

Sample ID **1206484-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206538-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID **1206538-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**

Prep Date: Analysis Date: **6/13/2012** SeqNo: **96009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103580** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS-b** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103586** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2395**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID **LCS-2395**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID **LCSD-2395**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
r: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **2.5UG GRO LCS**	SampType: **LCS**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **LCSW**	Batch ID: **R3447**			RunNo: **3447**						
Prep Date:	Analysis Date: **6/14/2012**			SeqNo: **96558**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID **1206537-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **R3447**			RunNo: **3447**						
Prep Date:	Analysis Date: **6/14/2012**			SeqNo: **96559**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID **1206537-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **R3447**			RunNo: **3447**						
Prep Date:	Analysis Date: **6/14/2012**			SeqNo: **96560**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID **B1**	SampType: **MBLK**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **PBW**	Batch ID: **R3447**			RunNo: **3447**						
Prep Date:	Analysis Date: **6/14/2012**			SeqNo: **99408**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96713** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.3	50.5	158			
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID **1206552-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96714** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	95.9	58	139			
Benzene	21	1.0	20.00	0	107	70.1	118			
Toluene	22	1.0	20.00	0	109	72.3	117			
enzene	21	1.0	20.00	0	106	73.5	117			
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	65.8	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	71.1	118			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140			

Sample ID **1206552-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96715** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	91.2	58	139	4.96	15.2	
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4	
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9	
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5	
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7	
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0	

Sample ID **b 1** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96749** Units: **µg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b 1**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R3447**	RunNo: **3447**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96749** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-[illegible]none	ND	10								
[illegible] disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	12		10.00		116	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.0	84.1	126			
Toluene	19	1.0	20.00	0	93.7	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

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

Client ID: **LCSW** Batch ID: **R3458** RunNo: **3458**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	12		10.00		118	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Sample ID **1206442-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3458** RunNo: **3458**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96911** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.2	71.1	135			
Toluene	18	1.0	20.00	0	87.8	74	121			
Chlorobenzene	18	1.0	20.00	0	90.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	76.3	127			
Trichloroethene (TCE)	18	1.0	20.00	0	88.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID **1206442-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R3458** RunNo: **3458**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96912** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.4	71.1	135	5.45	21.9	
Toluene	16	1.0	20.00	0	82.1	74	121	6.74	18.5	
Chlorobenzene	16	1.0	20.00	0	82.0	70	130	10.3	17.7	
1,1-Dichloroethene	18	1.0	20.00	0	92.0	76.3	127	5.65	16.5	
Trichloroethene (TCE)	16	1.0	20.00	0	80.7	70	130	8.96	18.9	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		117	69.8	130	0	0	
Surr: Toluene-d8	9.7		10.00		96.9	70	130	0	0	

Sample ID **b4** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R3458** RunNo: **3458**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b4**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96944** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
richloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130			
Surr: Dibromofluoromethane	11		10.00		112	69.8	130			
Surr: Toluene-d8	9.5		10.00		95.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96945** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.4	84.1	126			
Toluene	17	1.0	20.00	0	85.7	80	120			
Chlorobenzene	18	1.0	20.00	0	88.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.5	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206546**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206544-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96946** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	210	10	200.0	0	103	71.1	135			
Toluene	180	10	200.0	0	89.8	74	121			
Chlorobenzene	190	10	200.0	0	92.7	70	130			
1,1-Dichloroethene	210	10	200.0	0	103	76.3	127			
Trichloroethene (TCE)	190	10	200.0	0	92.8	70	130			
Surr: 1,2-Dichloroethane-d4	95		100.0		95.0	70	130			
Surr: 4-Bromofluorobenzene	98		100.0		98.3	70	130			
Surr: Dibromofluoromethane	120		100.0		124	69.8	130			
Surr: Toluene-d8	96		100.0		96.2	70	130			

Sample ID **1206544-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3458**	RunNo: **3458**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **96947** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	190	10	200.0	0	94.6	71.1	135	8.41	21.9	
Toluene	170	10	200.0	0	86.0	74	121	4.28	18.5	
Chlorobenzene	170	10	200.0	0	86.7	70	130	6.59	17.7	
1,1-Dichloroethene	190	10	200.0	0	93.7	76.3	127	9.93	16.5	
Trichloroethene (TCE)	170	10	200.0	0	83.6	70	130	10.4	18.9	
Surr: 1,2-Dichloroethane-d4	90		100.0		89.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130	0	0	
Surr: Dibromofluoromethane	110		100.0		114	69.8	130	0	0	
Surr: Toluene-d8	93		100.0		92.9	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1206546

Received by/date: RM 06/13/12

Logged By: Ashley Gallegos 6/13/2012 1:35:00 PM

Completed By: Ashley Gallegos 6/13/2012 3:13:33 PM

Reviewed By: MG 06/13/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes ✔	No ✔ HS 6/13	NA
11. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 7
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted? YES
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: MG

Added 1mL HNO_3 to ~pH 2 for acceptable pH.

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail Phone Fax In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice:

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		8015B (GRO/DRO)	8021B (MTBE + BTEX)	8260B (VOA)	VOC
6/12/12	1420	WW	GWM-1	VARIOUS	VARIOUS	-001	X	X	X	
6/12/12	1345	WW	GWM-2			-002	X	X	X	
6/12/12	1445	WW	GWM-3			-003	X	X	X	
6/12/12	0926	W	FIELD BLANK	3	HCL	-004				X
			TRIP BLANK			-005				X

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/13/12	0800	Dan Flores		6-13-12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time
6-13-12	1:39			6/13/12	1335

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206552

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 6/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206552**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206552-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 6/12/2012 11:36:00 AM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 9:54:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 9:54:52 PM
Surr: DNOP	129	61.3-164		%REC	1	6/14/2012 9:54:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 2:23:57 PM
Surr: BFB	80.6	69.3-120		%REC	1	6/14/2012 2:23:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/14/2012 2:23:57 PM
Benzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Ethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 2:23:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 2:23:57 PM
Surr: 4-Bromofluorobenzene	76.2	55-140		%REC	1	6/14/2012 2:23:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.88	0.50		mg/L	5	6/14/2012 12:36:22 AM
Chloride	120	10		mg/L	20	6/14/2012 12:47:35 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 12:36:22 AM
Bromide	1.7	0.50		mg/L	5	6/14/2012 12:36:22 AM
Nitrogen, Nitrate (As N)	2.9	0.50		mg/L	5	6/14/2012 12:36:22 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 12:36:22 AM
Sulfate	68	2.5		mg/L	5	6/14/2012 12:36:22 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.10	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Calcium	70	1.0		mg/L	1	6/28/2012 8:57:52 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 8:57:52 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 8:57:52 PM
Iron	0.025	0.020		mg/L	1	6/28/2012 8:57:52 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 8:57:52 PM
Magnesium	13	1.0		mg/L	1	6/28/2012 8:57:52 PM
Manganese	0.0037	0.0020		mg/L	1	6/28/2012 8:57:52 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 5:38:27 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:42:01 PM
Sodium	330	5.0		mg/L	5	7/5/2012 5:42:29 PM
Zinc	0.014	0.010		mg/L	1	6/28/2012 8:57:52 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.27	0.0020		mg/L	1	7/6/2012 2:42:08 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 11:36:00 AM
Lab ID: 1206552-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Cadmium	ND	0.0020		mg/L	1	7/6/2012 2:42:08 PM
Chromium	0.0068	0.0060		mg/L	1	7/6/2012 2:42:08 PM
Copper	ND	0.060		mg/L	10	6/28/2012 3:41:59 PM
Iron	7.5	0.20	*	mg/L	10	7/6/2012 3:30:51 PM
Lead	ND	0.0050		mg/L	1	7/6/2012 2:42:08 PM
Manganese	0.36	0.0020	*	mg/L	1	7/6/2012 2:42:08 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:22:47 PM
Zinc	0.037	0.010		mg/L	1	7/6/2012 2:42:08 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0023	0.0010		mg/L	1	6/29/2012 4:50:29 PM
Selenium	0.0062	0.0010		mg/L	1	6/29/2012 4:50:29 PM
Uranium	0.014	0.0010		mg/L	1	7/3/2012 12:33:53 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0031	0.0025		mg/L	2.5	6/27/2012 4:56:01 PM
Selenium	0.0052	0.0025		mg/L	2.5	6/27/2012 4:56:01 PM
Uranium	0.032	0.0025	*	mg/L	2.5	6/27/2012 4:56:01 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:27:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Aniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 12:51:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Carbazole	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 11:36:00 AM
Lab ID: 1206552-001 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Chrysene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Fluorene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Isophorone	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206552-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 6/12/2012 11:36:00 AM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 12:51:13 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Phenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Pyrene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Pyridine	ND	10		µg/L	1	6/18/2012 12:51:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 12:51:13 PM
Surr: 2,4,6-Tribromophenol	98.9	44.2-126		%REC	1	6/18/2012 12:51:13 PM
Surr: 2-Fluorobiphenyl	92.6	37-114		%REC	1	6/18/2012 12:51:13 PM
Surr: 2-Fluorophenol	64.3	23.4-98		%REC	1	6/18/2012 12:51:13 PM
Surr: 4-Terphenyl-d14	89.9	41.3-116		%REC	1	6/18/2012 12:51:13 PM
Surr: Nitrobenzene-d5	87.2	39.5-118		%REC	1	6/18/2012 12:51:13 PM
Surr: Phenol-d5	52.3	20.9-95.9		%REC	1	6/18/2012 12:51:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:52:00 AM
Lab ID: 1206552-002
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 10:20:31 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 10:20:31 PM
Surr: DNOP	130	61.3-164		%REC	1	6/14/2012 10:20:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	1.3	0.50		mg/L	10	6/14/2012 2:54:40 PM
Surr: BFB	92.4	69.3-120		%REC	10	6/14/2012 2:54:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	340	25		µg/L	10	6/14/2012 2:54:40 PM
Benzene	18	10		µg/L	10	6/14/2012 2:54:40 PM
Toluene	ND	10		µg/L	10	6/14/2012 2:54:40 PM
Ethylbenzene	12	10		µg/L	10	6/14/2012 2:54:40 PM
Xylenes, Total	ND	20		µg/L	10	6/14/2012 2:54:40 PM
1,2,4-Trimethylbenzene	15	10		µg/L	10	6/14/2012 2:54:40 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	6/14/2012 2:54:40 PM
Surr: 4-Bromofluorobenzene	85.3	55-140		%REC	10	6/14/2012 2:54:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	1.7	0.50		mg/L	5	6/14/2012 12:58:49 AM
Chloride	350	10		mg/L	20	6/14/2012 1:10:03 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 12:58:49 AM
Bromide	1.5	0.50		mg/L	5	6/14/2012 12:58:49 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	6/14/2012 12:58:49 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 12:58:49 AM
Sulfate	7.9	2.5		mg/L	5	6/14/2012 12:58:49 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	1.8	0.010		mg/L	5	6/28/2012 9:10:39 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:07:27 PM
Calcium	93	1.0		mg/L	1	6/28/2012 9:07:27 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:07:27 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:07:27 PM
Iron	2.7	0.10	*	mg/L	5	6/28/2012 9:10:39 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:07:27 PM
Magnesium	19	1.0		mg/L	1	6/28/2012 9:07:27 PM
Manganese	1.6	0.010	*	mg/L	5	6/28/2012 9:10:39 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 6:01:43 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:43:54 PM
Sodium	350	5.0		mg/L	5	7/5/2012 6:05:09 PM
Zinc	0.18	0.010		mg/L	1	6/28/2012 9:07:27 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	1.9	0.010		mg/L	5	7/6/2012 2:52:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:52:00 AM
Lab ID: 1206552-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Cadmium	ND	0.0020		mg/L	1	7/6/2012 2:49:18 PM
Chromium	ND	0.0060		mg/L	1	7/6/2012 2:49:18 PM
Copper	ND	0.060		mg/L	10	6/28/2012 3:45:41 PM
Iron	3.8	0.10	*	mg/L	5	7/6/2012 2:52:47 PM
Lead	ND	0.0050		mg/L	1	7/6/2012 2:49:18 PM
Manganese	1.9	0.010	*	mg/L	5	7/6/2012 2:52:47 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:24:39 PM
Zinc	ND	0.010		mg/L	1	7/6/2012 2:49:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0089	0.0010		mg/L	1	6/29/2012 4:59:39 PM
Selenium	0.0047	0.0010		mg/L	1	6/29/2012 4:59:39 PM
Uranium	ND	0.0010		mg/L	1	7/3/2012 12:37:37 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.010	0.0025	*	mg/L	2.5	6/27/2012 4:57:54 PM
Selenium	0.0035	0.0025		mg/L	2.5	6/27/2012 4:57:54 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 4:57:54 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:29:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Aniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 1:20:56 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Carbazole	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:52:00 AM
Lab ID: 1206552-002
Matrix: AQUEOUS
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Chrysene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Fluorene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Isophorone	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM

Qualifiers:
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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:52:00 AM
Lab ID: 1206552-002 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 1:20:56 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Phenol	16	10		µg/L	1	6/18/2012 1:20:56 PM
Pyrene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Pyridine	ND	10		µg/L	1	6/18/2012 1:20:56 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:20:56 PM
Surr: 2,4,6-Tribromophenol	72.6	44.2-126		%REC	1	6/18/2012 1:20:56 PM
Surr: 2-Fluorobiphenyl	68.5	37-114		%REC	1	6/18/2012 1:20:56 PM
Surr: 2-Fluorophenol	50.3	23.4-98		%REC	1	6/18/2012 1:20:56 PM
Surr: 4-Terphenyl-d14	67.6	41.3-116		%REC	1	6/18/2012 1:20:56 PM
Surr: Nitrobenzene-d5	66.3	39.5-118		%REC	1	6/18/2012 1:20:56 PM
Surr: Phenol-d5	40.1	20.9-95.9		%REC	1	6/18/2012 1:20:56 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 11:15:00 AM
Lab ID: 1206552-003 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 10:45:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 10:45:53 PM
Surr: DNOP	131	61.3-164		%REC	1	6/14/2012 10:45:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 3:25:14 PM
Surr: BFB	83.0	69.3-120		%REC	1	6/14/2012 3:25:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/14/2012 3:25:14 PM
Benzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Ethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 3:25:14 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:25:14 PM
Surr: 4-Bromofluorobenzene	79.3	55-140		%REC	1	6/14/2012 3:25:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.55	0.50		mg/L	5	6/14/2012 1:21:17 AM
Chloride	1000	50		mg/L	100	6/25/2012 2:46:16 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	6/14/2012 1:21:17 AM
Bromide	5.3	0.50		mg/L	5	6/14/2012 1:21:17 AM
Nitrogen, Nitrate (As N)	19	0.50	*	mg/L	5	6/14/2012 1:21:17 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 1:21:17 AM
Sulfate	450	10		mg/L	20	6/14/2012 1:32:30 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.054	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Calcium	37	1.0		mg/L	1	6/28/2012 9:14:23 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:14:23 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:14:23 PM
Iron	0.024	0.020		mg/L	1	6/28/2012 9:14:23 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:14:23 PM
Magnesium	6.2	1.0		mg/L	1	6/28/2012 9:14:23 PM
Manganese	ND	0.0020		mg/L	1	6/28/2012 9:14:23 PM
Potassium	3.7	1.0		mg/L	1	7/5/2012 6:08:57 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:36:07 PM
Sodium	870	10		mg/L	10	7/10/2012 10:58:44 AM
Zinc	0.015	0.010		mg/L	1	6/28/2012 9:14:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.11	0.0020		mg/L	1	6/28/2012 3:10:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 11:15:00 AM
Lab ID: 1206552-003 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Cadmium	ND	0.0020		mg/L	1	6/28/2012 3:10:05 PM
Chromium	0.0075	0.0060		mg/L	1	6/28/2012 3:10:05 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 3:10:05 PM
Iron	2.4	0.10	*	mg/L	5	6/28/2012 2:35:18 PM
Lead	0.0052	0.0050		mg/L	1	6/28/2012 3:10:05 PM
Manganese	0.082	0.0020	*	mg/L	1	6/28/2012 3:10:05 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 3:10:05 PM
Zinc	0.057	0.010		mg/L	1	6/28/2012 3:10:05 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0050	0.0020		mg/L	2	6/29/2012 5:01:32 PM
Selenium	0.019	0.0020		mg/L	2	6/29/2012 5:01:32 PM
Uranium	0.039	0.0020	*	mg/L	2	7/3/2012 12:46:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0051	0.0025		mg/L	2.5	6/27/2012 4:59:46 PM
Selenium	0.017	0.0025		mg/L	2.5	6/27/2012 4:59:46 PM
Uranium	0.041	0.0025	*	mg/L	2.5	6/27/2012 4:59:46 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:31:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Aniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 1:50:47 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Carbazole	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 11:15:00 AM
Lab ID: 1206552-003 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Chrysene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Fluorene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Isophorone	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206552-003 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 6/12/2012 11:15:00 AM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 1:50:47 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Phenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Pyrene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Pyridine	ND	10		µg/L	1	6/18/2012 1:50:47 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 1:50:47 PM
Surr: 2,4,6-Tribromophenol	99.5	44.2-126		%REC	1	6/18/2012 1:50:47 PM
Surr: 2-Fluorobiphenyl	93.6	37-114		%REC	1	6/18/2012 1:50:47 PM
Surr: 2-Fluorophenol	67.4	23.4-98		%REC	1	6/18/2012 1:50:47 PM
Surr: 4-Terphenyl-d14	93.6	41.3-116		%REC	1	6/18/2012 1:50:47 PM
Surr: Nitrobenzene-d5	96.3	39.5-118		%REC	1	6/18/2012 1:50:47 PM
Surr: Phenol-d5	54.7	20.9-95.9		%REC	1	6/18/2012 1:50:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 10:45:00 AM
Lab ID: 1206552-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/14/2012 11:11:32 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 11:11:32 PM
Surr: DNOP	129	61.3-164		%REC	1	6/14/2012 11:11:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	0.14	0.050		mg/L	1	6/14/2012 3:55:57 PM
Surr: BFB	103	69.3-120		%REC	1	6/14/2012 3:55:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	28	2.5		µg/L	1	6/14/2012 3:55:57 PM
Benzene	13	1.0		µg/L	1	6/14/2012 3:55:57 PM
Toluene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
Ethylbenzene	4.5	1.0		µg/L	1	6/14/2012 3:55:57 PM
Xylenes, Total	ND	2.0		µg/L	1	6/14/2012 3:55:57 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/14/2012 3:55:57 PM
Surr: 4-Bromofluorobenzene	97.9	55-140		%REC	1	6/14/2012 3:55:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	1.3	0.50		mg/L	5	6/14/2012 1:43:43 AM
Chloride	710	25		mg/L	50	6/25/2012 2:57:30 PM
Nitrogen, Nitrite (As N)	2.1	0.50		mg/L	5	6/14/2012 1:43:43 AM
Bromide	3.9	0.50		mg/L	5	6/14/2012 1:43:43 AM
Nitrogen, Nitrate (As N)	11	0.50	*	mg/L	5	6/14/2012 1:43:43 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	6/14/2012 1:43:43 AM
Sulfate	220	10		mg/L	20	6/14/2012 1:54:57 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.094	0.0020		mg/L	1	6/28/2012 9:22:22 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:22:22 PM
Calcium	68	1.0		mg/L	1	6/28/2012 9:22:22 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 9:22:22 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:22:22 PM
Iron	0.15	0.020		mg/L	1	6/28/2012 9:22:22 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:22:22 PM
Magnesium	12	1.0		mg/L	1	6/28/2012 9:22:22 PM
Manganese	0.38	0.0020	*	mg/L	1	6/28/2012 9:22:22 PM
Potassium	1.6	1.0		mg/L	1	7/5/2012 6:16:56 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:47:40 PM
Sodium	450	5.0		mg/L	5	7/5/2012 6:22:37 PM
Zinc	0.012	0.010		mg/L	1	6/28/2012 9:22:22 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.61	0.0020		mg/L	1	6/28/2012 2:39:04 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 10:45:00 AM
Lab ID: 1206552-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:39:04 PM
Chromium	0.022	0.0060		mg/L	1	6/28/2012 2:39:04 PM
Copper	0.0092	0.0060		mg/L	1	6/28/2012 2:39:04 PM
Iron	15	0.40	*	mg/L	20	7/2/2012 8:16:56 AM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:39:04 PM
Manganese	0.93	0.0020	*	mg/L	1	6/28/2012 2:39:04 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:39:04 PM
Zinc	0.055	0.010		mg/L	1	6/28/2012 2:39:04 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0038	0.0010		mg/L	1	6/29/2012 5:03:24 PM
Selenium	0.0072	0.0010		mg/L	1	6/29/2012 5:03:24 PM
Uranium	0.015	0.0010		mg/L	1	7/3/2012 12:48:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0057	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
Selenium	0.012	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
Uranium	0.027	0.0025		mg/L	2.5	6/27/2012 5:01:38 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:32:47 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Aniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Bis(2-ethylhexyl)phthalate	ND	35		µg/L	1	6/18/2012 2:20:33 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Carbazole	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 10:45:00 AM
Lab ID: 1206552-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Chrysene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Fluorene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Isophorone	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 10:45:00 AM
Lab ID: 1206552-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 2:20:33 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Phenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Pyrene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Pyridine	ND	10		µg/L	1	6/18/2012 2:20:33 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 2:20:33 PM
Surr: 2,4,6-Tribromophenol	94.2	44.2-126		%REC	1	6/18/2012 2:20:33 PM
Surr: 2-Fluorobiphenyl	86.8	37-114		%REC	1	6/18/2012 2:20:33 PM
Surr: 2-Fluorophenol	57.3	23.4-98		%REC	1	6/18/2012 2:20:33 PM
Surr: 4-Terphenyl-d14	87.3	41.3-116		%REC	1	6/18/2012 2:20:33 PM
Surr: Nitrobenzene-d5	83.2	39.5-118		%REC	1	6/18/2012 2:20:33 PM
Surr: Phenol-d5	44.6	20.9-95.9		%REC	1	6/18/2012 2:20:33 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/12/2012 9:26:00 AM
Lab ID: 1206552-005 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 9:32:09 PM
Surr: BFB	92.6	69.3-120		%REC	1	6/14/2012 9:32:09 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Toluene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 4:36:16 PM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 4:36:16 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 4:36:16 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 4:36:16 PM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 4:36:16 PM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	6/15/2012 4:36:16 PM
Surr: 4-Bromofluorobenzene	98.7	70-130		%REC	1	6/15/2012 4:36:16 PM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 4:36:16 PM
Surr: Toluene-d8	94.4	70-130		%REC	1	6/15/2012 4:36:16 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206552-006 **Matrix:** TRIP BLANK

Client Sample ID: TRIP BLANK
Collection Date:
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/14/2012 10:02:34 PM
Surr: BFB	85.8	69.3-120		%REC	1	6/14/2012 10:02:34 PM
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Toluene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/15/2012 5:04:48 PM
Naphthalene	ND	2.0		µg/L	1	6/15/2012 5:04:48 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:04:48 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/15/2012 5:04:48 PM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 5:04:48 PM
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	6/15/2012 5:04:48 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/15/2012 5:04:48 PM
Surr: Dibromofluoromethane	113	69.8-130		%REC	1	6/15/2012 5:04:48 PM
Surr: Toluene-d8	98.7	70-130		%REC	1	6/15/2012 5:04:48 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Calcium	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3875**	RunNo: **3875**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110339** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3875**	RunNo: **3875**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110340** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID **1206572-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3875**	RunNo: **3875**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	56	1.0	50.00	6.798	99.0	70	130			

Sample ID **1206572-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3875**	RunNo: **3875**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **1206982-003GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID **1206982-003GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2411**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
[illegible]mium	0.52	0.0060	0.5000	0	104	85	115			
[illegible]per	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **NAPIS-1**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3814**	RunNo: **3814**
Prep Date:	Analysis Date: **6/29/2012**	SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **NAPIS-1**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- */E Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3745**
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105997** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2463**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2463**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1206661-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID **1206661-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95995** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **95996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	90	110			
Chloride	4.8	0.50	5.000	0	95.8	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	97.4	90	110			
Bromide	2.4	0.10	2.500	0	97.1	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			

Sample ID **1206484-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110			
Chloride	17	0.50	5.000	11.44	114	87.8	111			S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111			
Bromide	2.5	0.10	2.500	0	99.6	83.3	107			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113			
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115			

Sample ID **1206484-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3429**	RunNo: **3429**
Prep Date:	Analysis Date: **6/13/2012**	SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.2434	104	76.6	110	0.128	20	
Chloride	17	0.50	5.000	11.44	114	87.8	111	0.121	20	S
Nitrogen, Nitrite (As N)	1.0	0.10	1.000	0	101	72.5	111	0.170	20	
Bromide	2.5	0.10	2.500	0	99.1	83.3	107	0.531	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206484-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**
Prep Date: Analysis Date: **6/13/2012** SeqNo: **96001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90.4	113	0.764	20	
Phosphorus, Orthophosphate (As P	5.4	0.50	5.000	0	108	74.5	115	0.163	20	

Sample ID **1206538-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**
Prep Date: Analysis Date: **6/13/2012** SeqNo: **96008** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.83	0.10	0.5000	0.3179	103	76.6	110			
Nitrogen, Nitrite (As N)	1.1	0.10	1.000	0	112	72.5	111			S
Bromide	2.7	0.10	2.500	0.4273	91.3	83.3	107			
Nitrogen, Nitrate (As N)	5.2	0.10	2.500	2.648	102	90.4	113			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	92.1	74.5	115			

Sample ID **1206538-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R3429** RunNo: **3429**
Prep Date: Analysis Date: **6/13/2012** SeqNo: **96009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.94	0.10	0.5000	0.3179	124	76.6	110	11.6	20	S
Nitrogen, Nitrite (As N)	1.3	0.10	1.000	0	131	72.5	111	15.9	20	S
Bromide	3.1	0.10	2.500	0.4273	108	83.3	107	14.7	20	S
Nitrogen, Nitrate (As N)	5.7	0.10	2.500	2.648	122	90.4	113	8.95	20	S
Phosphorus, Orthophosphate (As P	5.6	0.50	5.000	0	112	74.5	115	19.8	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R3674** RunNo: **3674**
Prep Date: Analysis Date: **6/25/2012** SeqNo: **103580** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS-b** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R3674** RunNo: **3674**
Prep Date: Analysis Date: **6/25/2012** SeqNo: **103586** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2395**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID **LCS-2395**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID **LCSD-2395**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**
12-Jul-12

Client: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**
Prep Date: Analysis Date: **6/14/2012** SeqNo: **96558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID **1206537-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**
Prep Date: Analysis Date: **6/14/2012** SeqNo: **96559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID **1206537-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**
Prep Date: Analysis Date: **6/14/2012** SeqNo: **96560** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID **B1** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**
Prep Date: Analysis Date: **6/14/2012** SeqNo: **99408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Qualifiers:

- *X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96713** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	89.3	50.5	158			
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID **1206552-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **NAPIS-1** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96714** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	95.9	58	139			
Benzene	21	1.0	20.00	0	107	70.1	118			
Toluene	22	1.0	20.00	0	109	72.3	117			
Ethylbenzene	21	1.0	20.00	0	106	73.5	117			
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	65.8	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	101	71.1	118			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140			

Sample ID **1206552-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **NAPIS-1** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96715** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0.3120	91.2	58	139	4.96	15.2	
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4	
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9	
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5	
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7	
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0	

Sample ID **b 1** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96749** Units: **µg/L**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b 1**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R3447**	RunNo: **3447**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96749** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

Qualifiers:

- * V Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **b1**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R3465**	RunNo: **3465**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **101181** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	69.8	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R3465**	RunNo: **3465**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **101182** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	84.1	126			
Toluene	18	1.0	20.00	0	90.6	80	120			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.5	70	130			
Surr: Dibromofluoromethane	12		10.00		121	69.8	130			
Surr: Toluene-d8	9.4		10.00		93.7	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	35								
4-Bromophenyl phenyl ether	ND	10								
' benzyl phthalate	ND	10								
...azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206552**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **lcs-2383**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98781** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.8	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	79.6	35.5	108			
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.0	32.6	91.5			
2,4-Dinitrotoluene	77	10	100.0	0	77.5	44.7	112			
N-Nitrosodi-n-propylamine	85	10	100.0	0	85.0	38.5	105			
4-Nitrophenol	90	10	200.0	0	44.9	11.6	73.1			
Pentachlorophenol	150	20	200.0	0	73.1	20.2	93			
Phenol	95	10	200.0	0	47.4	23	66.1			
Pyrene	72	10	100.0	0	72.2	40.1	101			
1,2,4-Trichlorobenzene	64	10	100.0	0	63.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID **lcsd-2383**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98783** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	74	10	100.0	0	74.0	38.2	99.4	10.3	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108	3.24	20	
2-Chlorophenol	140	10	200.0	0	71.6	29.8	106	7.10	20	
1,4-Dichlorobenzene	63	10	100.0	0	63.3	32.6	91.5	5.22	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.9	44.7	112	12.6	20	
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105	8.26	20	
4-Nitrophenol	110	10	200.0	0	57.1	11.6	73.1	23.8	20	R
Pentachlorophenol	150	20	200.0	0	75.3	20.2	93	3.01	20	
Phenol	96	10	200.0	0	48.0	23	66.1	1.26	20	
Pyrene	74	10	100.0	0	73.5	40.1	101	1.81	20	
1,2,4-Trichlorobenzene	72	10	100.0	0	72.2	37.7	99.1	12.7	20	
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1206552**

Received by/date: 06/13/12

Logged By: **Ashley Gallegos** **6/13/2012 1:35:00 PM**

Completed By: **Ashley Gallegos** **6/13/2012 3:29:53 PM**

Reviewed By: 6/14/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes	No ✔	NA
11. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 12
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: mg

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		Analysis Request: 8015B (DRO/GRO)	Metals (Total and Dissolved)			VOC															
6/12/12	1136	WW	NAPIS-1	VARIOUS	VARIOUS	-001	X	X	X	X																
6/12/12	0952	WW	NAPIS-2			-002	X	X	X	X																
6/12/12	1115	WW	NAPIS-3			-003	X	X	X	X																
6/12/12	1045	WW	KA-3			-004	X	X	X	X																
6/12/12	0926	W	FIELD BLANK	3	HCL	-005					X															
			TRIP BLANK			-006					X															

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/13/12	0800	Tom Keenes		6/13/12	0800
6-13-12	1:35			06/13/12	1335

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2nd QTR Groundwater Sampling OrderNo.: 1206557

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206557**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-001 **Matrix:** AQUEOUS

Client Sample ID: East LDU
Collection Date: 6/12/2012 12:20:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	27	1.0		mg/L	1	6/14/2012 11:36:55 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/14/2012 11:36:55 PM
Surr: DNOP	133	61.3-164		%REC	1	6/14/2012 11:36:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	24	5.0		mg/L	100	6/14/2012 10:33:12 PM
Surr: BFB	100	69.3-120		%REC	100	6/14/2012 10:33:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	6/15/2012 1:35:45 PM
Benzene	1300	100		µg/L	100	6/14/2012 10:33:12 PM
Toluene	1100	100		µg/L	100	6/14/2012 10:33:12 PM
Ethylbenzene	460	100		µg/L	100	6/14/2012 10:33:12 PM
Xylenes, Total	6300	200		µg/L	100	6/14/2012 10:33:12 PM
1,2,4-Trimethylbenzene	940	100		µg/L	100	6/14/2012 10:33:12 PM
1,3,5-Trimethylbenzene	300	100		µg/L	100	6/14/2012 10:33:12 PM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	100	6/14/2012 10:33:12 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.59	0.0020		mg/L	1	6/28/2012 9:46:38 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:46:38 PM
Chromium	0.28	0.0060	*	mg/L	1	6/28/2012 9:46:38 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:46:38 PM
Iron	0.062	0.020		mg/L	1	6/28/2012 9:46:38 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:46:38 PM
Manganese	1.1	0.010	*	mg/L	5	6/28/2012 9:53:19 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:49:33 PM
Zinc	0.011	0.010		mg/L	1	6/28/2012 9:46:38 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.60	0.0020		mg/L	1	6/28/2012 2:45:50 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:45:50 PM
Chromium	0.31	0.0060	*	mg/L	1	6/28/2012 2:45:50 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 2:45:50 PM
Iron	0.17	0.020		mg/L	1	6/28/2012 2:45:50 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:45:50 PM
Manganese	1.2	0.010	*	mg/L	5	6/28/2012 2:49:52 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:45:50 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 2:45:50 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0051	0.0050		mg/L	5	6/29/2012 5:05:16 PM
Selenium	0.0092	0.0050		mg/L	5	6/29/2012 5:05:16 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 12:50:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Analytical Report
Lab Order **1206557**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-001 **Matrix:** AQUEOUS

Client Sample ID: East LDU
Collection Date: 6/12/2012 12:20:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0099	0.0050		mg/L	5	6/27/2012 5:07:17 PM
Selenium	0.0065	0.0050		mg/L	5	6/27/2012 5:07:17 PM
Uranium	ND	0.0050		mg/L	5	6/27/2012 5:07:17 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:34:34 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-002 **Matrix:** AQUEOUS

Client Sample ID: West LDU
Collection Date: 6/12/2012 12:35:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	9.0	1.0		mg/L	1	6/15/2012 12:02:02 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2012 12:02:02 AM
Surr: DNOP	133	61.3-164		%REC	1	6/15/2012 12:02:02 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	27	5.0		mg/L	100	6/14/2012 11:03:51 PM
Surr: BFB	89.0	69.3-120		%REC	100	6/14/2012 11:03:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	6/15/2012 2:04:36 PM
Benzene	1400	100		µg/L	100	6/14/2012 11:03:51 PM
Toluene	3500	100		µg/L	100	6/14/2012 11:03:51 PM
Ethylbenzene	410	100		µg/L	100	6/14/2012 11:03:51 PM
Xylenes, Total	5700	200		µg/L	100	6/14/2012 11:03:51 PM
1,2,4-Trimethylbenzene	810	100		µg/L	100	6/14/2012 11:03:51 PM
1,3,5-Trimethylbenzene	260	100		µg/L	100	6/14/2012 11:03:51 PM
Surr: 4-Bromofluorobenzene	91.5	55-140		%REC	100	6/14/2012 11:03:51 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.35	0.0020		mg/L	1	6/28/2012 9:57:12 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 9:57:12 PM
Chromium	0.019	0.0060		mg/L	1	6/28/2012 9:57:12 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 9:57:12 PM
Iron	0.090	0.020		mg/L	1	6/28/2012 9:57:12 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 9:57:12 PM
Manganese	0.20	0.0020	*	mg/L	1	6/28/2012 9:57:12 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:51:23 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 9:57:12 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.36	0.0020		mg/L	1	6/28/2012 2:55:25 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 2:55:25 PM
Chromium	0.020	0.0060		mg/L	1	6/28/2012 2:55:25 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 2:55:25 PM
Iron	0.16	0.020		mg/L	1	6/28/2012 2:55:25 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 2:55:25 PM
Manganese	0.20	0.0020	*	mg/L	1	6/28/2012 2:55:25 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 2:55:25 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 2:55:25 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0050		mg/L	5	6/29/2012 5:07:08 PM
Selenium	0.0075	0.0050		mg/L	5	6/29/2012 5:07:08 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 12:59:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-002 **Matrix:** AQUEOUS

Client Sample ID: West LDU
Collection Date: 6/12/2012 12:35:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.0038	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
Selenium	0.0049	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
Uranium	ND	0.0025		mg/L	2.5	6/27/2012 5:09:09 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.0010		mg/L	5	6/19/2012 5:36:22 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-003 **Matrix:** AQUEOUS

Client Sample ID: Oil Sump LDU
Collection Date: 6/12/2012 12:10:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	18	1.0		mg/L	1	6/15/2012 12:27:25 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/15/2012 12:27:25 AM
Surr: DNOP	145	61.3-164		%REC	1	6/15/2012 12:27:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	36	10		mg/L	200	6/14/2012 11:34:33 PM
Surr: BFB	108	69.3-120		%REC	200	6/14/2012 11:34:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	6/15/2012 2:33:24 PM
Benzene	2100	200		µg/L	200	6/14/2012 11:34:33 PM
Toluene	6200	200		µg/L	200	6/14/2012 11:34:33 PM
Ethylbenzene	590	200		µg/L	200	6/14/2012 11:34:33 PM
Xylenes, Total	5100	400		µg/L	200	6/14/2012 11:34:33 PM
1,2,4-Trimethylbenzene	900	200		µg/L	200	6/14/2012 11:34:33 PM
1,3,5-Trimethylbenzene	280	200		µg/L	200	6/14/2012 11:34:33 PM
Surr: 4-Bromofluorobenzene	107	55-140		%REC	200	6/14/2012 11:34:33 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.35	0.0020		mg/L	1	6/28/2012 10:05:04 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:05:04 PM
Chromium	0.046	0.0060		mg/L	1	6/28/2012 10:05:04 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:05:04 PM
Iron	0.51	0.10	*	mg/L	5	6/28/2012 10:09:06 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:05:04 PM
Manganese	0.83	0.0020	*	mg/L	1	6/28/2012 10:05:04 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:54:56 PM
Zinc	0.016	0.010		mg/L	1	6/28/2012 10:05:04 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.56	0.0020		mg/L	1	6/28/2012 3:03:21 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 3:03:21 PM
Chromium	0.052	0.0060		mg/L	1	6/28/2012 3:03:21 PM
Copper	0.018	0.0060		mg/L	1	6/28/2012 3:03:21 PM
Iron	5.8	0.20	*	mg/L	10	7/2/2012 8:20:40 AM
Lead	0.0086	0.0050		mg/L	1	6/28/2012 3:03:21 PM
Manganese	0.84	0.0020	*	mg/L	1	6/28/2012 3:03:21 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 3:03:21 PM
Zinc	0.43	0.010		mg/L	1	6/28/2012 3:03:21 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0095	0.0050		mg/L	5	6/29/2012 5:10:54 PM
Selenium	0.012	0.0050		mg/L	5	6/29/2012 5:10:54 PM
Uranium	ND	0.0050		mg/L	5	7/3/2012 1:00:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR Groundwater Sampling
Lab ID: 1206557-003 **Matrix:** AQUEOUS

Client Sample ID: Oil Sump LDU
Collection Date: 6/12/2012 12:10:00 PM
Received Date: 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	0.017	0.0050	*	mg/L	5	6/27/2012 5:11:01 PM
Selenium	0.0097	0.0050		mg/L	5	6/27/2012 5:11:01 PM
Uranium	ND	0.0050		mg/L	5	6/27/2012 5:11:01 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	0.0031	0.0010	*	mg/L	5	6/19/2012 5:38:09 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR Groundwater Sampling
Collection Date: 6/12/2012 9:26:00 AM
Lab ID: 1206557-004 **Matrix:** AQUEOUS **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2012 1:20:24 PM
Benzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 12:35:41 AM
1,2,4-Trimethylbenzene	1.0	1.0		µg/L	1	6/15/2012 12:35:41 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 12:35:41 AM
Surr: 4-Bromofluorobenzene	84.8	55-140		%REC	1	6/15/2012 12:35:41 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: 2nd QTR Groundwater Sampling
Collection Date:
Lab ID: 1206557-005 **Matrix:** TRIP BLANK **Received Date:** 6/13/2012 1:35:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	6/18/2012 1:49:13 PM
Benzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Toluene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Ethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Xylenes, Total	ND	2.0		µg/L	1	6/15/2012 1:06:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/15/2012 1:06:13 AM
Surr: 4-Bromofluorobenzene	72.3	55-140		%REC	1	6/15/2012 1:06:13 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Sample ID **1206170-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106276** Units: **mg/L**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **1206170-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **1206982-003GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID **1206982-003GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105873** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2411**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2411**	RunNo: **3742**
Prep Date: **6/15/2012**	Analysis Date: **6/28/2012**	SeqNo: **105874** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	107	85	115			
Chromium	0.52	0.0060	0.5000	0	104	85	115			
Copper	0.56	0.0060	0.5000	0	111	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.53	0.0050	0.5000	0	107	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Silver	0.11	0.0050	0.1000	0	109	85	115			
Zinc	0.50	0.010	0.5000	0	99.4	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **1206552-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
[illegible]um	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID	**1206552-001EMS**	SampType: **MS**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID: **R3864**			RunNo: **3864**				
Prep Date:		Analysis Date: **7/3/2012**			SeqNo: **109791**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID	**1206693-001EMS**	SampType: **MS**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**BatchQC**	Batch ID: **R3864**			RunNo: **3864**				
Prep Date:		Analysis Date: **7/3/2012**			SeqNo: **109799**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**LCSW**	Batch ID: **R3864**			RunNo: **3864**				
Prep Date:		Analysis Date: **7/3/2012**			SeqNo: **109818**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Dissolved Metals**				
Client ID:	**PBW**	Batch ID: **R3864**			RunNo: **3864**				
Prep Date:		Analysis Date: **7/3/2012**			SeqNo: **109820**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **MB-2411**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2411**	RunNo: **3745**
Prep Date: **6/15/2012**	Analysis Date: **6/27/2012**	SeqNo: **105997** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **MB-2463**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2463**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99865** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	101	80	120			

Sample ID **1206661-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99867** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125			

Sample ID **1206661-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2463**	RunNo: **3543**
Prep Date: **6/19/2012**	Analysis Date: **6/19/2012**	SeqNo: **99868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0055	0.00020	0.005000	0	109	75	125	5.73	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **MB-2395**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96352** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		127	61.3	164			

Sample ID **LCS-2395**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96353** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.7	74	157			
Surr: DNOP	0.53		0.5000		106	61.3	164			

Sample ID **LCSD-2395**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2395**	RunNo: **3445**
Prep Date: **6/14/2012**	Analysis Date: **6/14/2012**	SeqNo: **96354** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.225	23	
Surr: DNOP	0.50		0.5000		101	61.3	164	0	0	

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	101	123			
Surr: BFB	23		20.00		115	69.3	120			

Sample ID **1206537-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	0	111	75.4	121			
Surr: BFB	190		200.0		94.2	69.3	120			

Sample ID **1206537-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96560** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.7	0.50	5.000	0	114	75.4	121	2.57	10.5	
Surr: BFB	230		200.0		115	69.3	120	0	0	

Sample ID **B1** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **99408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.2	69.3	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96713** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	62	2.0	60.00	0	103	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	104	80	120			
1,3,5-Trimethylbenzene	20	1.0	20.00	0	98.4	80	120			
Surr: 4-Bromofluorobenzene	19		20.00		92.7	55	140			

Sample ID **1206552-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96714** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70.1	118			
Toluene	22	1.0	20.00	0	109	72.3	117			
Ethylbenzene	21	1.0	20.00	0	106	73.5	117			
Xylenes, Total	64	2.0	60.00	0.3620	105	73.1	119			
Trimethylbenzene	21	1.0	20.00	0	107	65.8	121			
Trimethylbenzene	20	1.0	20.00	0	101	71.1	118			
Surr: 4-Bromofluorobenzene	19		20.00		95.4	55	140			

Sample ID **1206552-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96715** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70.1	118	2.19	16.4	
Toluene	21	1.0	20.00	0	104	72.3	117	5.24	13.9	
Ethylbenzene	20	1.0	20.00	0	102	73.5	117	4.19	13.5	
Xylenes, Total	61	2.0	60.00	0.3620	101	73.1	119	4.03	12.9	
1,2,4-Trimethylbenzene	20	1.0	20.00	0	100	65.8	121	6.43	13.5	
1,3,5-Trimethylbenzene	19	1.0	20.00	0	95.5	71.1	118	5.33	13.7	
Surr: 4-Bromofluorobenzene	23		20.00		115	55	140	0	0	

Sample ID **b 1** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R3447** RunNo: **3447**

Prep Date: Analysis Date: **6/14/2012** SeqNo: **96749** Units: **µg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206557**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR Groundwater Sampling

Sample ID **b 1**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R3447**	RunNo: **3447**
Prep Date:	Analysis Date: **6/14/2012**	SeqNo: **96749** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	17		20.00		84.0	55	140			

Sample ID **5ML-RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R3471**	RunNo: **3471**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98191** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Surr: 4-Bromofluorobenzene	19		20.00		92.5	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R3471**	RunNo: **3471**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98195** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	98.5	50.5	158			
Surr: 4-Bromofluorobenzene	19		20.00		96.9	55	140			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1206557**

Received by/date: LM 06/13/12

Logged By: **Ashley Gallegos** 6/13/2012 1:35:00 PM AG

Completed By: **Ashley Gallegos** 6/13/2012 3:44:29 PM AG

Reviewed By: KMS 6/14/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes ✔	No ✔	NA
11. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 6
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted? Yes
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by: AG

Added 1mL HNO_3 to -001D and -003D for acceptable pH.

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		8021B (BTEX)	8015B (TPH) GRO	VOC											
6/12/12	1220	WW	East LDU	VARIOUS	VARIOUS	-001	X	X	X											
6/12/12	1235	WW	West LDU			-002	X	X	X											
6/12/12	1210		Oil Sump LDU			-003	X	X	X											
6/12/12	0926	W	FIELD BLANK	B	HCL	-004				X										
			TRIP BLANK			-005				X										

Date:	Time:	Relinquished by:	Received by:	Date	Time
6/13/12	0800	Tom Deenen		6-13-12	0800
6-13-12	1:35			6/13/12	1335

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 12, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206693

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 6/15/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206693**
Date Reported: **7/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:30:00 AM
Lab ID: 1206693-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/18/2012 12:49:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/18/2012 12:49:24 PM
Surr: DNOP	124	61.3-164		%REC	1	6/18/2012 12:49:24 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.54	0.10		mg/L	1	6/16/2012 4:57:23 AM
Chloride	27	10		mg/L	20	6/16/2012 5:08:36 AM
Bromide	0.27	0.10		mg/L	1	6/26/2012 1:15:09 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/26/2012 1:15:09 AM
Sulfate	140	10		mg/L	20	6/26/2012 1:26:23 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 8:58:31 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.041	0.0020		mg/L	1	6/28/2012 10:13:00 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:13:00 PM
Calcium	21	1.0		mg/L	1	6/28/2012 10:13:00 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 10:13:00 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:13:00 PM
Iron	ND	0.020		mg/L	1	6/28/2012 10:13:00 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:13:00 PM
Magnesium	3.6	1.0		mg/L	1	6/28/2012 10:13:00 PM
Manganese	0.081	0.0020	*	mg/L	1	6/28/2012 10:13:00 PM
Potassium	ND	1.0		mg/L	1	7/5/2012 7:29:29 PM
Silver	ND	0.0050		mg/L	1	7/6/2012 5:56:45 PM
Sodium	240	5.0		mg/L	5	7/5/2012 7:35:07 PM
Zinc	0.012	0.010		mg/L	1	6/28/2012 10:13:00 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.081	0.0020		mg/L	1	6/28/2012 4:17:10 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:17:10 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:17:10 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:17:10 PM
Iron	0.89	0.020	*	mg/L	1	6/28/2012 4:17:10 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:17:10 PM
Manganese	0.10	0.0020	*	mg/L	1	6/28/2012 4:17:10 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:17:10 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:17:10 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	0.0019	0.0010		mg/L	1	6/29/2012 5:12:46 PM
Selenium	ND	0.0010		mg/L	1	6/29/2012 5:12:46 PM
Uranium	0.0085	0.0010		mg/L	1	7/3/2012 1:04:41 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:30:00 AM
Lab ID: 1206693-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:22:55 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:04:59 PM
Uranium	0.0074	0.0025		mg/L	2.5	6/20/2012 5:22:55 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:44:41 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Aniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Carbazole	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Chrysene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 3:50:25 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:30:00 AM
Lab ID: 1206693-001
Matrix: AQUEOUS
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Fluorene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Isophorone	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 3:50:25 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Phenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pyrene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Pyridine	ND	10		µg/L	1	6/18/2012 3:50:25 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 3:50:25 PM
Surr: 2,4,6-Tribromophenol	87.8	44.2-126		%REC	1	6/18/2012 3:50:25 PM
Surr: 2-Fluorobiphenyl	82.4	37-114		%REC	1	6/18/2012 3:50:25 PM
Surr: 2-Fluorophenol	60.4	23.4-98		%REC	1	6/18/2012 3:50:25 PM
Surr: 4-Terphenyl-d14	72.5	41.3-116		%REC	1	6/18/2012 3:50:25 PM
Surr: Nitrobenzene-d5	85.1	39.5-118		%REC	1	6/18/2012 3:50:25 PM
Surr: Phenol-d5	47.8	20.9-95.9		%REC	1	6/18/2012 3:50:25 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:30:00 AM
Lab ID: 1206693-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:24:09 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:24:09 AM
Acetone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 3:24:09 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:30:00 AM
Lab ID: 1206693-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 3:24:09 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 3:24:09 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 3:24:09 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 3:24:09 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 3:24:09 AM
Surr: 1,2-Dichloroethane-d4	81.1	70-130		%REC	1	6/20/2012 3:24:09 AM
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	1	6/20/2012 3:24:09 AM
Surr: Dibromofluoromethane	77.6	69.8-130		%REC	1	6/20/2012 3:24:09 AM
Surr: Toluene-d8	89.6	70-130		%REC	1	6/20/2012 3:24:09 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 3:24:09 AM
Surr: BFB	93.6	70-130		%REC	1	6/20/2012 3:24:09 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	1000	0.010		µmhos/cm	1	6/18/2012 12:19:03 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	8.28	1.68	H	pH units	1	6/18/2012 12:19:03 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:50:00 AM
Lab ID: 1206693-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/20/2012 9:56:06 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/20/2012 9:56:06 AM
Surr: DNOP	121	61.3-164		%REC	1	6/20/2012 9:56:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.58	0.10		mg/L	1	6/16/2012 5:53:31 AM
Chloride	27	10		mg/L	20	6/16/2012 5:19:49 AM
Bromide	0.19	0.10		mg/L	1	6/26/2012 1:37:36 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/26/2012 1:37:36 AM
Sulfate	140	10		mg/L	20	6/26/2012 1:48:51 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 9:10:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.026	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Calcium	4.2	1.0		mg/L	1	6/28/2012 10:22:23 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 10:22:23 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 10:22:23 PM
Iron	0.076	0.020		mg/L	1	6/28/2012 10:22:23 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 10:22:23 PM
Magnesium	ND	1.0		mg/L	1	6/28/2012 10:22:23 PM
Manganese	0.023	0.0020		mg/L	1	6/28/2012 10:22:23 PM
Potassium	1.4	1.0		mg/L	1	7/10/2012 11:59:58 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:04:27 PM
Sodium	230	5.0		mg/L	5	7/10/2012 12:03:56 PM
Zinc	0.023	0.010		mg/L	1	6/28/2012 10:22:23 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.028	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:24:53 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:24:53 PM
Iron	0.17	0.020		mg/L	1	6/28/2012 4:24:53 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:24:53 PM
Manganese	0.027	0.0020		mg/L	1	6/28/2012 4:24:53 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:24:53 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:24:53 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0010		mg/L	1	6/29/2012 5:14:38 PM
Selenium	ND	0.0010		mg/L	1	6/29/2012 5:14:38 PM
Uranium	0.011	0.0010		mg/L	1	7/3/2012 1:16:39 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:50:00 AM
Lab ID: 1206693-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:26:51 PM
Selenium	ND	0.0025		mg/L	2.5	6/21/2012 3:06:51 PM
Uranium	0.010	0.0025		mg/L	2.5	6/20/2012 5:26:51 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:46:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Acenaphthylene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Aniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Azobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benz(a)anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(a)pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Benzoic acid	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Benzyl alcohol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Butyl benzyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Carbazole	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chloroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Chloronaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Chlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Chrysene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Di-n-butyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Di-n-octyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dibenzofuran	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Diethyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Dimethyl phthalate	ND	10		µg/L	1	6/18/2012 4:20:58 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206693-002 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 6/13/2012 10:50:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dichlorophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dimethylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dinitrophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Fluoranthene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Fluorene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorobutadiene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Hexachloroethane	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Isophorone	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Methylnaphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3+4-Methylphenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Naphthalene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Nitroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
3-Nitroaniline	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Nitroaniline	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Nitrobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2-Nitrophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
4-Nitrophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pentachlorophenol	ND	20		µg/L	1	6/18/2012 4:20:58 PM
Phenanthrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Phenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pyrene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Pyridine	ND	10		µg/L	1	6/18/2012 4:20:58 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	6/18/2012 4:20:58 PM
Surr: 2,4,6-Tribromophenol	94.5	44.2-126		%REC	1	6/18/2012 4:20:58 PM
Surr: 2-Fluorobiphenyl	91.7	37-114		%REC	1	6/18/2012 4:20:58 PM
Surr: 2-Fluorophenol	68.4	23.4-98		%REC	1	6/18/2012 4:20:58 PM
Surr: 4-Terphenyl-d14	73.8	41.3-116		%REC	1	6/18/2012 4:20:58 PM
Surr: Nitrobenzene-d5	99.4	39.5-118		%REC	1	6/18/2012 4:20:58 PM
Surr: Phenol-d5	56.5	20.9-95.9		%REC	1	6/18/2012 4:20:58 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:50:00 AM
Lab ID: 1206693-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:51:41 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 3:51:41 AM
Acetone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 3:51:41 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:50:00 AM
Lab ID: 1206693-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 3:51:41 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 3:51:41 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 3:51:41 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 3:51:41 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 3:51:41 AM
Surr: 1,2-Dichloroethane-d4	79.8	70-130		%REC	1	6/20/2012 3:51:41 AM
Surr: 4-Bromofluorobenzene	91.6	70-130		%REC	1	6/20/2012 3:51:41 AM
Surr: Dibromofluoromethane	71.9	69.8-130		%REC	1	6/20/2012 3:51:41 AM
Surr: Toluene-d8	88.7	70-130		%REC	1	6/20/2012 3:51:41 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 3:51:41 AM
Surr: BFB	91.6	70-130		%REC	1	6/20/2012 3:51:41 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	960	0.010		µmhos/cm	1	6/18/2012 12:23:04 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	8.36	1.68	H	pH units	1	6/18/2012 12:23:04 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 11:10:00 AM
Lab ID: 1206693-003 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:19:28 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:19:28 AM
Acetone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 4:19:28 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206693-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/13/2012 11:10:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 4:19:28 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 4:19:28 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 4:19:28 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 4:19:28 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 4:19:28 AM
Surr: 1,2-Dichloroethane-d4	78.0	70-130		%REC	1	6/20/2012 4:19:28 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	6/20/2012 4:19:28 AM
Surr: Dibromofluoromethane	67.9	69.8-130	S	%REC	1	6/20/2012 4:19:28 AM
Surr: Toluene-d8	87.4	70-130		%REC	1	6/20/2012 4:19:28 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106273** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0	92.8	85	115			
Cadmium	0.48	0.0020	0.5000	0.0004300	96.3	85	115			
Calcium	48	1.0	50.00	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.5	85	115			
Copper	0.48	0.0060	0.5000	0.005440	95.3	85	115			
Iron	0.46	0.020	0.5000	0	92.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.3	85	115			
Magnesium	50	1.0	50.00	0	99.4	85	115			
Manganese	0.46	0.0020	0.5000	0	91.6	85	115			
Zinc	0.45	0.010	0.5000	0	90.6	85	115			

Sample ID **1206170-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3742**	RunNo: **3742**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **106275** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1763	91.5	70	130			
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130			
Chromium	0.47	0.0060	0.5000	0	93.9	70	130			
Copper	0.50	0.0060	0.5000	0.005570	98.0	70	130			
Iron	0.46	0.020	0.5000	0	92.1	70	130			
Lead	0.47	0.0050	0.5000	0.004690	92.8	70	130			
Magnesium	63	1.0	50.00	13.68	98.3	70	130			
Manganese	0.98	0.0020	0.5000	0.5366	88.8	70	130			
Zinc	0.45	0.010	0.5000	0.005080	88.1	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206170-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3742** RunNo: **3742**
Prep Date: Analysis Date: **6/28/2012** SeqNo: **106276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.64	0.0020	0.5000	0.1763	92.3	70	130	0.609	20	
Cadmium	0.48	0.0020	0.5000	0	96.0	70	130	0.0271	20	
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.399	20	
Copper	0.50	0.0060	0.5000	0.005570	99.0	70	130	0.920	20	
Iron	0.47	0.020	0.5000	0	93.1	70	130	1.08	20	
Lead	0.47	0.0050	0.5000	0.004690	92.2	70	130	0.663	20	
Magnesium	62	1.0	50.00	13.68	97.5	70	130	0.648	20	
Manganese	0.99	0.0020	0.5000	0.5366	90.4	70	130	0.799	20	
Zinc	0.44	0.010	0.5000	0.005080	87.8	70	130	0.351	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3875** RunNo: **3875**
Prep Date: Analysis Date: **7/5/2012** SeqNo: **110339** Units: **mg/L**

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

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3875** RunNo: **3875**
Prep Date: Analysis Date: **7/5/2012** SeqNo: **110340** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	48	1.0	50.00	0	95.0	85	115			
Sodium	49	1.0	50.00	0.06605	97.4	85	115			

Sample ID **1206572-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3875** RunNo: **3875**
Prep Date: Analysis Date: **7/5/2012** SeqNo: **110372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	56	1.0	50.00	6.798	99.0	70	130			

Sample ID **1206572-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3875** RunNo: **3875**
Prep Date: Analysis Date: **7/5/2012** SeqNo: **110373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	57	1.0	50.00	6.798	101	70	130	1.96	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **1206982-003GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID **1206982-003GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3558**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **100447** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2437**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2437**	RunNo: **3558**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **100448** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Chromium	0.46	0.0060	0.5000	0	93.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.2	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Lead	0.48	0.0050	0.5000	0	95.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.0	85	115			
Zinc	0.46	0.010	0.5000	0	92.4	85	115			

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3510**
Prep Date: **6/18/2012**	Analysis Date: **6/19/2012**	SeqNo: **110534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID **LCS-2437**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2437**	RunNo: **3510**
Prep Date: **6/18/2012**	Analysis Date: **6/19/2012**	SeqNo: **110535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	91.4	85	115			

Qualifiers:

- K Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **OW-50**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3586**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **101232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2555**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103704** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2555**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103705** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	.00004132	99.0	80	120			

Sample ID **1206839-003BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103712** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	98.1	75	125			

Sample ID **1206839-003BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	97.7	75	125	0.417	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98018** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			

Sample ID **1206661-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.62	0.10	0.5000	0	125	76.6	110			S
Chloride	6.0	0.50	5.000	0.1042	118	87.8	111			S

Sample ID **1206661-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	76.6	110	15.1	20	
Chloride	5.0	0.50	5.000	0.1042	97.2	87.8	111	18.7	20	

Sample ID **1206674-004AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	0.5000	0.5421	96.7	76.6	110			
Chloride	13	0.50	5.000	7.528	106	87.8	111			

Sample ID **1206674-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98061** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.5421	104	76.6	110	3.45	20	
Chloride	13	0.50	5.000	7.528	103	87.8	111	1.21	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.5	0.50	5.000	0	90.8	90	110			

Sample ID **1206676-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3680	95.2	76.6	110			
Chloride	16	0.50	5.000	11.75	94.3	87.8	111			

Sample ID **1206676-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.3680	107	76.6	110	6.94	20	
Chloride	17	0.50	5.000	11.75	108	87.8	111	4.12	20	

Sample ID **1206702-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98093** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.89	0.10	0.5000	0.3668	105	76.6	110			
Chloride	11	0.50	5.000	5.507	102	87.8	111			

Sample ID **1206702-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98094** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3668	102	76.6	110	2.07	20	
Chloride	10	0.50	5.000	5.507	99.1	87.8	111	1.58	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103580** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS-b** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103586** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	97.5	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.6	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID **1206A41-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103617** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.8	0.10	2.500	0.5814	90.0	83.3	107			
Phosphorus, Orthophosphate (As P	4.7	0.50	5.000	0	94.7	74.5	115			

Sample ID **1206A41-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/25/2012** SeqNo: **103618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	3.0	0.10	2.500	0.5814	95.9	83.3	107	5.10	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115	6.36	20	

Sample ID **1206A50-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/26/2012** SeqNo: **103653** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	26	1.0	25.00	1.580	98.9	83.3	107			

Sample ID **1206A50-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R3674** RunNo: **3674**

Prep Date: Analysis Date: **6/26/2012** SeqNo: **103654** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	24	1.0	25.00	1.580	91.1	83.3	107	7.66	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R3741**	RunNo: **3741**							
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105798**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R3741**	RunNo: **3741**							
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105799**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID **1206B68-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**							
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **105849**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	100	88.6	110			

Sample ID **1206B68-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**							
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **105850**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	103	88.6	110	1.63	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2434**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		125	61.3	164			

Sample ID **LCS-2434**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157			
Surr: DNOP	0.52		0.5000		104	61.3	164			

Sample ID **LCSD-2434**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Sample ID **MB-2471**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **99779** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		119	61.3	164			

Sample ID **LCS-2471**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **99896** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157			
Surr: DNOP	0.54		0.5000		108	61.3	164			

Sample ID **LCSD-2471**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **100099** Units: **mg/L**

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

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **LCSD-2471**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **100099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	74	157	1.02	23	
Surr: DNOP	0.56		0.5000		112	61.3	164	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**	
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99906**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		81.1	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	7.0		10.00		70.1	69.8	130			
Surr: Toluene-d8	8.8		10.00		87.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99909** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.9	84.1	126			
Toluene	18	1.0	20.00	0	88.7	80	120			
Chlorobenzene	18	1.0	20.00	0	89.5	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99909** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	7.5		10.00		75.3	69.8	130			
Surr: Toluene-d8	8.5		10.00		84.8	70	130			

Sample ID **1206758-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	99	5.0	100.0	0	99.1	71.1	135			
Toluene	94	5.0	100.0	0	93.8	74	121			
Chlorobenzene	92	5.0	100.0	0	91.7	70	130			
1,1-Dichloroethene	91	5.0	100.0	0	91.4	76.3	127			
Trichloroethene (TCE)	87	5.0	100.0	0	87.0	70	130			
Surr: 1,2-Dichloroethane-d4	41		50.00		82.4	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.3	70	130			
Surr: Dibromofluoromethane	37		50.00		73.7	69.8	130			
Surr: Toluene-d8	43		50.00		86.9	70	130			

Sample ID **1206758-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99911** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	89	5.0	100.0	0	88.8	71.1	135	11.0	21.9	
Toluene	88	5.0	100.0	0	87.9	74	121	6.47	18.5	
Chlorobenzene	88	5.0	100.0	0	87.7	70	130	4.48	17.7	
1,1-Dichloroethene	83	5.0	100.0	0	83.3	76.3	127	9.23	16.5	
Trichloroethene (TCE)	81	5.0	100.0	0	81.0	70	130	7.13	18.9	
Surr: 1,2-Dichloroethane-d4	40		50.00		79.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	46		50.00		92.1	70	130	0	0	
Surr: Dibromofluoromethane	34		50.00		67.2	69.8	130	0	0	S
Surr: Toluene-d8	42		50.00		83.8	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **mb-2383**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98779** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	99		200.0		49.7	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.9	37	114			
Surr: 2-Fluorophenol	59		200.0		29.7	23.4	98			
Surr: 4-Terphenyl-d14	70		100.0		69.8	41.3	116			
Surr: Nitrobenzene-d5	68		100.0		68.1	39.5	118			
Surr: Phenol-d5	68		200.0		34.1	20.9	95.9			

Sample ID **lcs-2383**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98781** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	190		200.0		96.2	44.2	126			
Surr: 2-Fluorobiphenyl	71		100.0		70.7	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	90		100.0		90.0	41.3	116			
Surr: Nitrobenzene-d5	73		100.0		72.9	39.5	118			
Surr: Phenol-d5	94		200.0		47.0	20.9	95.9			

Sample ID **lcs-2433**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98782** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.0	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	82.2	35.5	108			
2-Chlorophenol	140	10	200.0	0	70.6	29.8	106			
1,4-Dichlorobenzene	56	10	100.0	0	56.2	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	86.8	44.7	112			
N-Nitrosodi-n-propylamine	81	10	100.0	0	80.6	38.5	105			
4-Nitrophenol	85	10	200.0	0	42.3	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	65.2	20.2	93			
Phenol	96	10	200.0	0	48.1	23	66.1			
Pyrene	85	10	100.0	0	84.6	40.1	101			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.1	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		86.5	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		76.0	37	114			
Surr: 2-Fluorophenol	110		200.0		55.1	23.4	98			
Surr: 4-Terphenyl-d14	93		100.0		92.6	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		77.5	39.5	118			
Surr: Phenol-d5	100		200.0		51.9	20.9	95.9			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **lcsd-2383**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2383**	RunNo: **3511**
Prep Date: **6/14/2012**	Analysis Date: **6/18/2012**	SeqNo: **98783** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	180		200.0		89.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	77		100.0		76.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		54.2	23.4	98	0	0	
Surr: 4-Terphenyl-d14	87		100.0		86.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	80		100.0		79.8	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.1	20.9	95.9	0	0	

Sample ID **lcsd-2433**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98784** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.1	38.2	99.4	5.88	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.2	35.5	108	2.54	20	
2-Chlorophenol	130	10	200.0	0	67.2	29.8	106	4.95	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.9	32.6	91.5	4.22	20	
2,4-Dinitrotoluene	96	10	100.0	0	96.4	44.7	112	10.4	20	
N-Nitrosodi-n-propylamine	80	10	100.0	0	79.7	38.5	105	1.20	20	
4-Nitrophenol	97	10	200.0	0	48.5	11.6	73.1	13.7	20	
Pentachlorophenol	140	20	200.0	0	72.3	20.2	93	10.3	20	
Phenol	86	10	200.0	0	42.9	23	66.1	11.4	20	
Pyrene	93	10	100.0	0	93.3	40.1	101	9.79	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	6.51	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.6	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		53.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	91		100.0		90.6	41.3	116	0	0	
Surr: Nitrobenzene-d5	83		100.0		82.8	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.4	20.9	95.9	0	0	

Sample ID **MB-2433**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **99052** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2433**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2433**	RunNo: **3511**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **99052** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
[illegible]sene	ND	10								
[illegible]-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2433**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2433**	RunNo: **3511**	
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **99052**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		82.8	44.2	126			
Surr: 2-Fluorobiphenyl	77		100.0		76.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.7	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		78.3	39.5	118			
Surr: Phenol-d5	99		200.0		49.6	20.9	95.9			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206670-001C dup**	SampType: **DUP**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **BatchQC**	Batch ID: **R3500**	RunNo: **3500**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **98404**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3200	0.010						3.54	20	

Sample ID **1206736-005C dup**	SampType: **DUP**	TestCode: **EPA 120.1: Specific Conductance**							
Client ID: **BatchQC**	Batch ID: **R3500**	RunNo: **3500**							
Prep Date:	Analysis Date: **6/18/2012**	SeqNo: **98418**	Units: **µmhos/cm**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	4500	0.010						0.355	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.3		10.00		93.4	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	85	115			
Surr: BFB	9.3		10.00		92.6	70	130			

Sample ID **1206758-001amsdg**	SampType: **MSD**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99942** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	45		50.00		89.8	70	130	0	0	

Sample ID **1206758-001amsg**	SampType: **MS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99943** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	46		50.00		92.3	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206693**

12-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206670-001C dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98377**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.13	1.68								H

Sample ID	**1206736-005C dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98394**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.49	1.68								H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1206693

Received by/date: AG 06/15/12

Logged By: **Anne Thorne** 6/15/2012 9:31:00 AM Anne Thorne

Completed By: **Anne Thorne** 6/15/2012 Anne Thorne

Reviewed By: MO 06/15/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6
(~~<2~~ or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		8015B (GRO/DRO)	VOCs Method 8260B (VOA)				VOA											
6/13/12	1130	W	OW-50	VARIOUS	VARIOUS	-001	X	X	X	X	X												
6/13/12	1050	W	OW-52	1	L	-002	X	X	X	X	X												
6/13/12	1110	W	FIELD BLANK			-003						X											

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
6/15/12	0931	Tom Pfenner		06/15/12	0931	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

July 16, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2nd QTR 2012 Groundwater Sampling OrderNo.: 1206698

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/15/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1206698**
Date Reported: **7/16/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 6/13/2012 9:05:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/18/2012 1:15:33 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/18/2012 1:15:33 PM
Surr: DNOP	121	61.3-164		%REC	1	6/18/2012 1:15:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.34	0.10		mg/L	1	6/16/2012 7:12:08 AM
Chloride	61	10		mg/L	20	6/16/2012 7:23:22 AM
Bromide	0.26	0.10		mg/L	1	6/27/2012 6:54:23 PM
Sulfate	180	10		mg/L	20	6/27/2012 7:06:48 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 7:56:27 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.036	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Cadmium	ND	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Calcium	2.1	1.0		mg/L	1	7/11/2012 9:44:29 AM
Chromium	ND	0.0060		mg/L	1	7/11/2012 9:44:29 AM
Copper	ND	0.0060		mg/L	1	7/11/2012 9:44:29 AM
Iron	ND	0.020		mg/L	1	7/11/2012 9:44:29 AM
Lead	ND	0.0050		mg/L	1	7/11/2012 9:44:29 AM
Magnesium	ND	1.0		mg/L	1	7/11/2012 7:20:01 PM
Manganese	0.0067	0.0020		mg/L	1	7/11/2012 9:44:29 AM
Potassium	1.1	1.0		mg/L	1	7/11/2012 9:44:29 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:06:18 PM
Sodium	320	5.0		mg/L	5	7/11/2012 9:50:31 AM
Zinc	0.015	0.010		mg/L	1	7/11/2012 9:44:29 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.035	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:32:41 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:32:41 PM
Iron	0.074	0.020		mg/L	1	6/28/2012 4:32:41 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:32:41 PM
Manganese	0.012	0.0020		mg/L	1	6/28/2012 4:32:41 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:32:41 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:32:41 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0010		mg/L	1	6/29/2012 5:16:30 PM
Selenium	0.0037	0.0010		mg/L	1	6/29/2012 5:16:30 PM
Uranium	0.043	0.0010	*	mg/L	1	7/3/2012 1:18:31 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:30:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 6/13/2012 9:05:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Selenium	0.0042	0.0025		mg/L	2.5	6/21/2012 3:08:43 PM
Uranium	0.039	0.0025	*	mg/L	2.5	6/20/2012 5:30:47 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:48:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:47:13 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 4:47:13 AM
Acetone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 9:05:00 AM
Lab ID: 1206698-001 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 4:47:13 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 4:47:13 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 4:47:13 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 4:47:13 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 4:47:13 AM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%REC	1	6/20/2012 4:47:13 AM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	1	6/20/2012 4:47:13 AM
Surr: Dibromofluoromethane	71.9	69.8-130		%REC	1	6/20/2012 4:47:13 AM
Surr: Toluene-d8	88.5	70-130		%REC	1	6/20/2012 4:47:13 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/20/2012 4:47:13 AM
Surr: BFB	94.5	70-130		%REC	1	6/20/2012 4:47:13 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	1300	0.010		µmhos/cm	1	6/18/2012 12:27:05 PM
SM4500-H+B: PH						Analyst: **DBD**
pH	8.76	1.68	*H	pH units	1	6/18/2012 12:27:05 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:05:00 AM
Lab ID: 1206698-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/20/2012 10:21:29 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/20/2012 10:21:29 AM
Surr: DNOP	122	61.3-164		%REC	1	6/20/2012 10:21:29 AM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Fluoride	0.31	0.10		mg/L	1	6/16/2012 8:08:17 AM
Chloride	980	50		mg/L	100	6/27/2012 7:44:02 PM
Bromide	ND	2.0		mg/L	20	6/27/2012 7:31:38 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	6/27/2012 7:31:38 PM
Sulfate	160	10		mg/L	20	6/27/2012 7:31:38 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/27/2012 8:08:52 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.080	0.0020		mg/L	1	7/11/2012 9:54:17 AM
Cadmium	ND	0.0020		mg/L	1	7/11/2012 9:54:17 AM
Calcium	160	10		mg/L	10	7/11/2012 9:58:09 AM
Chromium	ND	0.0060		mg/L	1	7/11/2012 9:54:17 AM
Copper	ND	0.0060		mg/L	1	7/11/2012 9:54:17 AM
Iron	ND	0.020		mg/L	1	7/11/2012 9:54:17 AM
Lead	ND	0.0050		mg/L	1	7/11/2012 9:54:17 AM
Magnesium	21	1.0		mg/L	1	7/11/2012 7:35:05 PM
Manganese	0.053	0.0020	*	mg/L	1	7/11/2012 9:54:17 AM
Potassium	1.9	1.0		mg/L	1	7/11/2012 9:54:17 AM
Silver	ND	0.0050		mg/L	1	7/6/2012 6:08:12 PM
Sodium	740	10		mg/L	10	7/11/2012 9:58:09 AM
Zinc	0.026	0.010		mg/L	1	7/11/2012 9:54:17 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.079	0.0020		mg/L	1	6/28/2012 4:42:32 PM
Cadmium	ND	0.0020		mg/L	1	6/28/2012 4:42:32 PM
Chromium	ND	0.0060		mg/L	1	6/28/2012 4:42:32 PM
Copper	ND	0.0060		mg/L	1	6/28/2012 4:42:32 PM
Iron	ND	0.020		mg/L	1	6/28/2012 4:42:32 PM
Lead	ND	0.0050		mg/L	1	6/28/2012 4:42:32 PM
Manganese	0.054	0.0020	*	mg/L	1	6/28/2012 4:42:32 PM
Silver	ND	0.0050		mg/L	1	6/28/2012 4:42:32 PM
Zinc	ND	0.010		mg/L	1	6/28/2012 4:42:32 PM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Arsenic	ND	0.0020		mg/L	2	7/5/2012 6:06:53 PM
Selenium	0.014	0.0020		mg/L	2	7/5/2012 6:06:53 PM
Uranium	0.067	0.0020	*	mg/L	2	7/3/2012 1:20:23 PM
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**

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R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:05:00 AM
Lab ID: 1206698-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **SNV**
Arsenic	ND	0.0025		mg/L	2.5	6/20/2012 5:34:43 PM
Selenium	0.013	0.0025		mg/L	2.5	6/21/2012 3:10:35 PM
Uranium	0.062	0.0025	*	mg/L	2.5	6/20/2012 5:34:43 PM
EPA METHOD 245.1: MERCURY						Analyst: **RAG**
Mercury	ND	0.00020		mg/L	1	6/26/2012 9:50:06 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Methyl tert-butyl ether (MTBE)	130	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:14:45 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:14:45 AM
Acetone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-002 **Matrix:** AQUEOUS

Client Sample ID: OW-10
Collection Date: 6/13/2012 10:05:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 5:14:45 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 5:14:45 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 5:14:45 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 5:14:45 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 5:14:45 AM
Surr: 1,2-Dichloroethane-d4	81.9	70-130		%REC	1	6/20/2012 5:14:45 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	6/20/2012 5:14:45 AM
Surr: Dibromofluoromethane	73.4	69.8-130		%REC	1	6/20/2012 5:14:45 AM
Surr: Toluene-d8	91.0	70-130		%REC	1	6/20/2012 5:14:45 AM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	0.14	0.050		mg/L	1	6/20/2012 5:14:45 AM
Surr: BFB	92.9	70-130		%REC	1	6/20/2012 5:14:45 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **DBD**
Conductivity	3700	0.010		µmhos/cm	1	6/18/2012 12:35:32 PM
SM4500-H+B: PH						Analyst: **DBD**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date: 6/13/2012 10:05:00 AM
Lab ID: 1206698-002 **Matrix:** AQUEOUS **Received Date:** 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM4500-H+B: PH						Analyst: **DBD**
pH	7.65	1.68	H	pH units	1	6/18/2012 12:35:32 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/13/2012 8:35:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:42:33 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 5:42:33 AM
Acetone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 5:42:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 6/13/2012 8:35:00 AM
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 5:42:33 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 5:42:33 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 5:42:33 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 5:42:33 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 5:42:33 AM
Surr: 1,2-Dichloroethane-d4	79.6	70-130		%REC	1	6/20/2012 5:42:33 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	6/20/2012 5:42:33 AM
Surr: Dibromofluoromethane	70.6	69.8-130		%REC	1	6/20/2012 5:42:33 AM
Surr: Toluene-d8	87.5	70-130		%REC	1	6/20/2012 5:42:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2nd QTR 2012 Groundwater Sampling
Lab ID: 1206698-004 **Matrix:** TRIP BLANK

Client Sample ID: Trip Blank
Collection Date:
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Toluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Ethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Naphthalene	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 6:10:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	6/20/2012 6:10:25 AM
Acetone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Bromobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromoform	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Bromomethane	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
2-Butanone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Carbon disulfide	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chloroethane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Chloroform	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Chloromethane	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Dibromomethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
2-Hexanone	ND	10		µg/L	1	6/20/2012 6:10:25 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 2nd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1206698-004
Matrix: TRIP BLANK
Received Date: 6/15/2012 9:31:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	6/20/2012 6:10:25 AM
Methylene Chloride	ND	3.0		µg/L	1	6/20/2012 6:10:25 AM
n-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
n-Propylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
sec-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Styrene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
tert-Butylbenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	6/20/2012 6:10:25 AM
Vinyl chloride	ND	1.0		µg/L	1	6/20/2012 6:10:25 AM
Xylenes, Total	ND	1.5		µg/L	1	6/20/2012 6:10:25 AM
Surr: 1,2-Dichloroethane-d4	80.9	70-130		%REC	1	6/20/2012 6:10:25 AM
Surr: 4-Bromofluorobenzene	96.5	70-130		%REC	1	6/20/2012 6:10:25 AM
Surr: Dibromofluoromethane	71.1	69.8-130		%REC	1	6/20/2012 6:10:25 AM
Surr: Toluene-d8	88.3	70-130		%REC	1	6/20/2012 6:10:25 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	98.8	85	115			

Sample ID **1206982-003GMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.9	70	130			

Sample ID **1206982-003GMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3896**	RunNo: **3896**
Prep Date:	Analysis Date: **7/6/2012**	SeqNo: **110940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	100	70	130	0.280	20	

Sample ID **1206572-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **112979** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.49	0.0050	0.5000	0.002050	97.7	70	130			

Sample ID **1206572-002DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **112980** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0.002050	96.5	70	130	1.25	20	

Sample ID **1206572-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **112982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	109	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206572-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **112982** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	360	5.0	250.0	79.79	113	70	130			

Sample ID **1206572-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **112983** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	97.25	107	70	130	1.16	20	
Sodium	350	5.0	250.0	79.79	108	70	130	3.81	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **113009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R3958** RunNo: **3958**

Prep Date: Analysis Date: **7/11/2012** SeqNo: **113010** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0.0007500	96.8	85	115			
Calcium	57	1.0	50.00	0	113	85	115			
Chromium	0.48	0.0060	0.5000	0	95.1	85	115			
Copper	0.47	0.0060	0.5000	0	93.2	85	115			
Iron	0.46	0.020	0.5000	0	91.8	85	115			
Lead	0.49	0.0050	0.5000	0.002080	97.2	85	115			
Manganese	0.46	0.0020	0.5000	0	92.8	85	115			
Potassium	55	1.0	50.00	0	111	85	115			
Sodium	57	1.0	50.00	0.05015	114	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3958**	RunNo: **3958**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113010** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.49	0.010	0.5000	0	97.8	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3972**	RunNo: **3972**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113770** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3972**	RunNo: **3972**
Prep Date:	Analysis Date: **7/11/2012**	SeqNo: **113771** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	48	1.0	50.00	0	96.9	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3558**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **100447** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-2437**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2437**	RunNo: **3558**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **100448** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.4	85	115			
Cadmium	0.48	0.0020	0.5000	0	95.4	85	115			
Chromium	0.46	0.0060	0.5000	0	93.0	85	115			
Copper	0.47	0.0060	0.5000	0	94.2	85	115			
Iron	0.48	0.020	0.5000	0	95.4	85	115			
Lead	0.48	0.0050	0.5000	0	95.6	85	115			
Manganese	0.47	0.0020	0.5000	0	93.2	85	115			
Silver	0.095	0.0050	0.1000	0	95.0	85	115			
Zinc	0.46	0.010	0.5000	0	92.4	85	115			

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3510**
Prep Date: **6/18/2012**	Analysis Date: **6/19/2012**	SeqNo: **110534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Zinc	ND	0.010								

Sample ID **LCS-2437**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **2437**	RunNo: **3510**
Prep Date: **6/18/2012**	Analysis Date: **6/19/2012**	SeqNo: **110535** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Copper	0.49	0.0060	0.5000	0	97.6	85	115			
Zinc	0.46	0.010	0.5000	0	91.4	85	115			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.002324	95.3	70	130			
Selenium	0.030	0.0010	0.02500	0.006168	93.4	70	130			

Sample ID **1206698-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **OW-1** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107949** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0.0009653	91.4	70	130			
Selenium	0.026	0.0010	0.02500	0.003687	87.8	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107969** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	95.9	85	115			
Selenium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R3814** RunNo: **3814**
Prep Date: Analysis Date: **6/29/2012** SeqNo: **107972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- * / X Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206552-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109791** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.041	0.0010	0.02500	0.01393	108	70	130			

Sample ID **1206693-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.035	0.0010	0.02500	0.008515	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3864**	RunNo: **3864**
Prep Date:	Analysis Date: **7/3/2012**	SeqNo: **109820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R3878**	RunNo: **3878**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110532** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R3878**	RunNo: **3878**
Prep Date:	Analysis Date: **7/5/2012**	SeqNo: **110533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2437**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **2437**	RunNo: **3586**
Prep Date: **6/18/2012**	Analysis Date: **6/20/2012**	SeqNo: **101232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2555**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103704** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-2555**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103705** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	.00004132	99.0	80	120			

Sample ID **1206839-003BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103712** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	98.1	75	125			

Sample ID **1206839-003BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **2555**	RunNo: **3676**
Prep Date: **6/25/2012**	Analysis Date: **6/26/2012**	SeqNo: **103713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00003668	97.7	75	125	0.417	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98018** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	96.1	90	110			

Sample ID **1206661-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.62	0.10	0.5000	0	125	76.6	110			S
Chloride	6.0	0.50	5.000	0.1042	118	87.8	111			S

Sample ID **1206661-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	76.6	110	15.1	20	
Chloride	5.0	0.50	5.000	0.1042	97.2	87.8	111	18.7	20	

Sample ID **1206674-004AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	0.5000	0.5421	96.7	76.6	110			
Chloride	13	0.50	5.000	7.528	106	87.8	111			

Sample ID **1206674-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/15/2012**	SeqNo: **98061** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.5421	104	76.6	110	3.45	20	
Chloride	13	0.50	5.000	7.528	103	87.8	111	1.21	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	105	90	110			
Chloride	4.5	0.50	5.000	0	90.8	90	110			

Sample ID **1206676-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.84	0.10	0.5000	0.3680	95.2	76.6	110			
Chloride	16	0.50	5.000	11.75	94.3	87.8	111			

Sample ID **1206676-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.90	0.10	0.5000	0.3680	107	76.6	110	6.94	20	
Chloride	17	0.50	5.000	11.75	108	87.8	111	4.12	20	

Sample ID **1206702-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98093** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.89	0.10	0.5000	0.3668	105	76.6	110			
Chloride	11	0.50	5.000	5.507	102	87.8	111			

Sample ID **1206702-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3489**	RunNo: **3489**
Prep Date:	Analysis Date: **6/16/2012**	SeqNo: **98094** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3668	102	76.6	110	2.07	20	
Chloride	10	0.50	5.000	5.507	99.1	87.8	111	1.58	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105798** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105799** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Bromide	2.4	0.10	2.500	0	97.4	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	90	110			
Sulfate	9.7	0.50	10.00	0	97.4	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID **1206B22-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105801** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.5	0.10	2.500	0	99.0	83.3	107			

Sample ID **1206B22-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/27/2012**	SeqNo: **105802** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.5	0.10	2.500	0	98.7	83.3	107	0.263	20	

Sample ID **1206B68-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **105849** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	0.50	5.000	9.623	106	87.8	111			
Bromide	2.4	0.10	2.500	0	97.1	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.2	74.5	115			
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	100	88.6	110			

Qualifiers:

- MX Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **1206B68-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R3741**	RunNo: **3741**
Prep Date:	Analysis Date: **6/28/2012**	SeqNo: **105850** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	0.50	5.000	9.623	106	87.8	111	0.196	20	
Bromide	2.5	0.10	2.500	0	99.6	83.3	107	2.53	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.8	74.5	115	2.66	20	
Nitrate+Nitrite as N	5.3	0.20	3.500	1.753	103	88.6	110	1.63	20	

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **MB-2434**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		125	61.3	164			

Sample ID **LCS-2434**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.4	1.0	5.000	0	109	74	157			
Surr: DNOP	0.52		0.5000		104	61.3	164			

Sample ID **LCSD-2434**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2434**	RunNo: **3492**
Prep Date: **6/18/2012**	Analysis Date: **6/18/2012**	SeqNo: **98202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157	7.41	23	
Surr: DNOP	0.54		0.5000		108	61.3	164	0	0	

Sample ID **MB-2471**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **99779** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		119	61.3	164			

Sample ID **LCS-2471**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **99896** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	117	74	157			
Surr: DNOP	0.54		0.5000		108	61.3	164			

Sample ID **LCSD-2471**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **100099** Units: **mg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **LCSD-2471**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2471**	RunNo: **3541**
Prep Date: **6/19/2012**	Analysis Date: **6/20/2012**	SeqNo: **100099** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.8	1.0	5.000	0	116	74	157	1.02	23	
Surr: DNOP	0.56		0.5000		112	61.3	164	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
›n disulfide	ND	10								
›on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99906** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		81.1	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	7.0		10.00		70.1	69.8	130			
Surr: Toluene-d8	8.8		10.00		87.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99909** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.9	84.1	126			
Toluene	18	1.0	20.00	0	88.7	80	120			
Chlorobenzene	18	1.0	20.00	0	89.5	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.5	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.0	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99909** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	7.5		10.00		75.3	69.8	130			
Surr: Toluene-d8	8.5		10.00		84.8	70	130			

Sample ID **1206758-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99910** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	99	5.0	100.0	0	99.1	71.1	135			
Toluene	94	5.0	100.0	0	93.8	74	121			
Chlorobenzene	92	5.0	100.0	0	91.7	70	130			
1,1-Dichloroethene	91	5.0	100.0	0	91.4	76.3	127			
Trichloroethene (TCE)	87	5.0	100.0	0	87.0	70	130			
Surr: 1,2-Dichloroethane-d4	41		50.00		82.4	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.3	70	130			
Surr: Dibromofluoromethane	37		50.00		73.7	69.8	130			
Surr: Toluene-d8	43		50.00		86.9	70	130			

Sample ID **1206758-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99911** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	89	5.0	100.0	0	88.8	71.1	135	11.0	21.9	
Toluene	88	5.0	100.0	0	87.9	74	121	6.47	18.5	
Chlorobenzene	88	5.0	100.0	0	87.7	70	130	4.48	17.7	
1,1-Dichloroethene	83	5.0	100.0	0	83.3	76.3	127	9.23	16.5	
Trichloroethene (TCE)	81	5.0	100.0	0	81.0	70	130	7.13	18.9	
Surr: 1,2-Dichloroethane-d4	40		50.00		79.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	46		50.00		92.1	70	130	0	0	
Surr: Dibromofluoromethane	34		50.00		67.2	69.8	130	0	0	S
Surr: Toluene-d8	42		50.00		83.8	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206670-001C dup**	SampType: **DUP**		TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98404**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3200	0.010						3.54	20	

Sample ID	**1206736-005C dup**	SampType: **DUP**		TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98418**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	4500	0.010						0.355	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.3		10.00		93.4	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/19/2012**	SeqNo: **99940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	100	85	115			
Surr: BFB	9.3		10.00		92.6	70	130			

Sample ID **1206758-001amsdg**	SampType: **MSD**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99942** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	45		50.00		89.8	70	130	0	0	

Sample ID **1206758-001amsg**	SampType: **MS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R3548**	RunNo: **3548**
Prep Date:	Analysis Date: **6/20/2012**	SeqNo: **99943** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	46		50.00		92.3	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1206698**

16-Jul-12

Client: Western Refining Southwest, Gallup

Project: 2nd QTR 2012 Groundwater Sampling

Sample ID	**1206670-001C dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98377**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.13	1.68								H

Sample ID	**1206736-005C dup**	SampType: **DUP**		TestCode: **SM4500-H+B: pH**					
Client ID:	**BatchQC**	Batch ID: **R3500**		RunNo: **3500**					
Prep Date:		Analysis Date: **6/18/2012**		SeqNo: **98394**		Units: **pH units**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.49	1.68								H

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1206698

Received by/date: AG 06/15/12

Logged By: Anne Thorne 6/15/2012 9:31:00 AM

Completed By: Anne Thorne 6/15/2012

Reviewed By: MA 06/15/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☐ Standard ☐ Rush

Project Name: 2nd QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		8015B (GRO/DRO)	8021B (BTEX)	MTBE	VOC	
6/13/12	0905	W	OW-1	VARIOUS	VARIOUS	-001	X	X	X	X	
6/13/12	1005	W	OW-10	1	1	-002	X	X	X	X	
6/13/12	0835	W	FIELD BLANK			-003				X	
			Trip Blank			-004				X	
			MJ 6/15								

Analysis Request

Date	Time	Relinquished by:	Received by:	Date	Time
6/15/12	0931	Tom Sloan		06/15/12	0931
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

September 04, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX: (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208992

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208992**
Date Reported: **9/4/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208992-001 **Matrix:** AQUEOUS

Client Sample ID: EP-2 Inlet
Collection Date: 8/21/2012 7:55:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 5:17:36 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 5:17:36 PM
Surr: DNOP	148	79.5-166		%REC	1	8/23/2012 5:17:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/24/2012 5:21:29 PM
Surr: BFB	104	69.8-119		%REC	1	8/24/2012 5:21:29 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	ND	2.0		mg/L	1	8/28/2012 5:49:00 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:34:20 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:34:20 AM
Acetone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2 Inlet
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 7:55:00 PM
Lab ID: 1208992-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 4:34:20 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 4:34:20 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 4:34:20 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 4:34:20 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 4:34:20 AM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: Dibromofluoromethane	95.0	70-130		%REC	1	8/25/2012 4:34:20 AM
Surr: Toluene-d8	101	70-130		%REC	1	8/25/2012 4:34:20 AM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	3720	20.0		mg/L	1	8/30/2012 11:32:00 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- X Value exceeds Maximum Contaminant Level.

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208992-002 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 8:05:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:02:36 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:02:36 AM
Acetone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:05:00 PM
Lab ID: 1208992-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 5:02:36 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 5:02:36 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 5:02:36 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 5:02:36 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 5:02:36 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	8/25/2012 5:02:36 AM
Surr: Toluene-d8	99.6	70-130		%REC	1	8/25/2012 5:02:36 AM

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- X Value exceeds Maximum Contaminant Level.

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 29, 2012

ESC Sample # : L591698-01

Date Received : August 24, 2012
Description :

Site ID :

Sample ID : 1208992-001D EP-2 INLET

Project # :

Collected By :
Collection Date : 08/21/12 19:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	BDL	10.	mg/l	410.4	08/28/12	1

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

Reported: 08/29/12 09:15 Printed: 08/29/12 09:15

ESC
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Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L591698

August 29, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG609724	08/28/12 16:03

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	14.0	15.0	5.48*	5	L591808-01	WG609724
COD	mg/l	0	0	0	5	L591399-02	WG609724

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	238.	103.	90-110	WG609724

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	240.	238.	104.	90-110	0.837	5	WG609724

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	486.	84.0	400	100.	90-110	L591674-01	WG609724

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	488.	486.	101.	90-110	0.411	5	L591674-01	WG609724

Batch number /Run number / Sample number cross reference

WG609724: R2320393: L591698-01

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

QC SUMMARY REPORT

WO#: **1208992**

Hall Environmental Analysis Laboratory, Inc.

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID: **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID: **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.2	69.8	119			

Sample ID: **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID: **1208990-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
Surr: BFB	210		200.0		106	69.8	119			

Sample ID: **1208990-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	0	0	

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145099** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145100** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID: **1208A05-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145103** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID: **1208A05-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145104** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

Qualifiers:

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- R RPD outside accepted recovery limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**	
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

Qualifiers:

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- ND Not Detected at the Reporting Limit
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208992**

Hall Environmental Analysis Laboratory, Inc.

04-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **MB-3456** SampType: **MBLK** TestCode: **SM5210B: BOD**
Client ID: **PBW** Batch ID: **3456** RunNo: **5122**
Prep Date: **8/23/2012** Analysis Date: **8/28/2012** SeqNo: **145574** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID: **MB-3456** SampType: **MBLK** TestCode: **SM5210B: BOD**
Client ID: **PBW** Batch ID: **3456** RunNo: **5122**
Prep Date: **8/23/2012** Analysis Date: **8/28/2012** SeqNo: **145575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID: **LCS-3456** SampType: **LCS** TestCode: **SM5210B: BOD**
Client ID: **LCSW** Batch ID: **3456** RunNo: **5122**
Prep Date: **8/23/2012** Analysis Date: **8/28/2012** SeqNo: **145576** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	92.9	84.6	115.4			

Sample ID: **LCSD-3456** SampType: **LCSD** TestCode: **SM5210B: BOD**
Client ID: **LCSS02** Batch ID: **3456** RunNo: **5122**
Prep Date: **8/23/2012** Analysis Date: **8/28/2012** SeqNo: **145577** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	93.4	84.6	115.4	0.542	20	

Sample ID: **1208937-002ADUP** SampType: **DUP** TestCode: **SM5210B: BOD**
Client ID: **BatchQC** Batch ID: **3456** RunNo: **5122**
Prep Date: **8/23/2012** Analysis Date: **8/28/2012** SeqNo: **145582** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	62	2.0						0.0962	20	

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208992**

04-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID: **MB-3480**	SampType: **MBLK**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **PBW**	Batch ID: **3480**	RunNo: **5206**
Prep Date: **8/24/2012**	Analysis Date: **8/30/2012**	SeqNo: **148126** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: **LCS-3480**	SampType: **LCS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **LCSW**	Batch ID: **3480**	RunNo: **5206**
Prep Date: **8/24/2012**	Analysis Date: **8/30/2012**	SeqNo: **148127** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID: **1208996-002BMS**	SampType: **MS**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **BatchQC**	Batch ID: **3480**	RunNo: **5206**
Prep Date: **8/24/2012**	Analysis Date: **8/30/2012**	SeqNo: **148131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1390	20.0	1000	378.0	102	80	120			

Sample ID: **1208996-002BMSD**	SampType: **MSD**	TestCode: **SM2540C MOD: Total Dissolved Solids**
Client ID: **BatchQC**	Batch ID: **3480**	RunNo: **5206**
Prep Date: **8/24/2012**	Analysis Date: **8/30/2012**	SeqNo: **148132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1400	20.0	1000	378.0	102	80	120	0.501	20	

Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208992

Received by/date: AT 08/22/12

Logged By: Anne Thorne — 8/22/2012 1:22:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/22/2012 — Anne Thorne

Reviewed By: 08/22/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: /

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208992	Analysis Request: 8015B (DRO/GRO)	BTEX + MTBE + TMB's (8021B)	TDS	Air Bubbles (Y or N)
8/21/12	1955	GW	EP-2 Inlet	9		-001	X	X	X	X	
8/21/12	2005	W	Field Blank	3		-002	X				
8/21/12	—	W	~~Trip Blank~~	3	AT 08/22/12	~~-003~~	X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/22/12	0830				
8/22/12	13:22			08/22/12	1322

Remarks: NO TB |AT 08/22/12

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

September 19, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B32

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B32**
Date Reported: **9/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:10:00 AM
Lab ID: 1208B32-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2012 5:04:19 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2012 5:04:19 PM
Surr: DNOP	133	79.5-166		%REC	1	8/27/2012 5:04:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 4:15:08 AM
Surr: BFB	103	69.8-119		%REC	1	8/29/2012 4:15:08 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.24	0.10		mg/L	1	8/27/2012 5:26:42 PM
Chloride	62	10		mg/L	20	8/27/2012 6:03:58 PM
Bromide	0.26	0.10		mg/L	1	8/27/2012 5:26:42 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 5:26:42 PM
Sulfate	170	10		mg/L	20	8/27/2012 6:03:58 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:41:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.029	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Calcium	2.4	1.0		mg/L	1	9/12/2012 2:07:29 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:07:29 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:07:29 PM
Iron	ND	0.020		mg/L	1	9/12/2012 2:07:29 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:07:29 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 2:07:29 PM
Manganese	0.0086	0.0020		mg/L	1	9/12/2012 2:07:29 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:07:29 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:07:29 PM
Sodium	330	5.0		mg/L	5	9/12/2012 2:11:32 PM
Zinc	0.011	0.010		mg/L	1	9/12/2012 2:07:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.039	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:09:52 AM
Copper	0.0080	0.0060		mg/L	1	9/10/2012 7:09:52 AM
Iron	0.19	0.020		mg/L	1	9/10/2012 7:09:52 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:09:52 AM
Manganese	0.027	0.0020		mg/L	1	9/10/2012 7:09:52 AM
Silver	ND	0.0050		mg/L	1	9/10/2012 7:09:52 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:09:52 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/6/2012 2:40:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:10:00 AM
Lab ID: 1208B32-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0036	0.0010		mg/L	1	9/6/2012 2:40:58 PM
Uranium	0.041	0.0010	*	mg/L	1	9/6/2012 2:40:58 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 2:10:09 PM
Selenium	0.0041	0.0025		mg/L	2.5	8/30/2012 2:10:09 PM
Uranium	0.040	0.0025	*	mg/L	2.5	8/30/2012 2:10:09 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:19:10 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Aniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Carbazole	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Chrysene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:10:00 AM
Lab ID: 1208B32-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Fluorene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Isophorone	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 7:21:14 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Phenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pyrene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Pyridine	ND	10		µg/L	1	8/29/2012 7:21:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:21:14 PM
Surr: 2,4,6-Tribromophenol	77.2	44.2-126		%REC	1	8/29/2012 7:21:14 PM
Surr: 2-Fluorobiphenyl	70.8	37-114		%REC	1	8/29/2012 7:21:14 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 8/22/2012 10:10:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	46.7	23.4-98		%REC	1	8/29/2012 7:21:14 PM
Surr: 4-Terphenyl-d14	61.4	41.3-116		%REC	1	8/29/2012 7:21:14 PM
Surr: Nitrobenzene-d5	71.7	39.5-118		%REC	1	8/29/2012 7:21:14 PM
Surr: Phenol-d5	39.6	20.9-95.9		%REC	1	8/29/2012 7:21:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 5:20:26 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 5:20:26 AM
Acetone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:10:00 AM
Lab ID: 1208B32-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 5:20:26 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 5:20:26 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 5:20:26 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 5:20:26 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 5:20:26 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: Dibromofluoromethane	98.5	70-130		%REC	1	8/30/2012 5:20:26 AM
Surr: Toluene-d8	101	70-130		%REC	1	8/30/2012 5:20:26 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:35:00 AM
Lab ID: 1208B32-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/27/2012 5:26:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/27/2012 5:26:28 PM
Surr: DNOP	127	79.5-166		%REC	1	8/27/2012 5:26:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 4:45:19 AM
Surr: BFB	101	69.8-119		%REC	1	8/29/2012 4:45:19 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.34	0.10		mg/L	1	9/5/2012 9:35:39 PM
Chloride	280	10		mg/L	20	8/27/2012 6:53:37 PM
Bromide	0.59	0.10		mg/L	1	9/5/2012 9:35:39 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	9/5/2012 9:35:39 PM
Sulfate	130	10		mg/L	20	8/27/2012 6:53:37 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:54:15 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.034	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Calcium	29	1.0		mg/L	1	9/12/2012 2:15:10 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:15:10 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:15:10 PM
Iron	ND	0.020		mg/L	1	9/12/2012 2:15:10 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:15:10 PM
Magnesium	5.4	1.0		mg/L	1	9/12/2012 2:15:10 PM
Manganese	ND	0.0020		mg/L	1	9/12/2012 2:15:10 PM
Potassium	1.0	1.0		mg/L	1	9/12/2012 2:15:10 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:15:10 PM
Sodium	410	5.0		mg/L	5	9/12/2012 2:37:37 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 2:15:10 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.037	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:16:44 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 7:16:44 AM
Iron	0.030	0.020		mg/L	1	9/10/2012 7:16:44 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:16:44 AM
Manganese	0.0034	0.0020		mg/L	1	9/10/2012 7:16:44 AM
Silver	ND	0.0050		mg/L	1	9/10/2012 7:16:44 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:16:44 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0010	0.0010		mg/L	1	9/6/2012 2:44:54 PM

Qualifiers:

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P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:35:00 AM
Lab ID: 1208B32-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0076	0.0010		mg/L	1	9/6/2012 2:44:54 PM
Uranium	0.050	0.0010	*	mg/L	1	9/6/2012 2:44:54 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 2:14:05 PM
Selenium	0.0084	0.0025		mg/L	2.5	8/30/2012 2:14:05 PM
Uranium	0.049	0.0025	*	mg/L	2.5	8/30/2012 2:14:05 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:20:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Aniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Carbazole	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Chrysene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-002 **Matrix:** AQUEOUS

Client Sample ID: OW-10
Collection Date: 8/22/2012 10:35:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Fluorene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Isophorone	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 7:51:16 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Phenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pyrene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Pyridine	ND	10		µg/L	1	8/29/2012 7:51:16 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 7:51:16 PM
Surr: 2,4,6-Tribromophenol	103	44.2-126		%REC	1	8/29/2012 7:51:16 PM
Surr: 2-Fluorobiphenyl	89.0	37-114		%REC	1	8/29/2012 7:51:16 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-002 **Matrix:** AQUEOUS

Client Sample ID: OW-10
Collection Date: 8/22/2012 10:35:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	61.6	23.4-98		%REC	1	8/29/2012 7:51:16 PM
Surr: 4-Terphenyl-d14	84.7	41.3-116		%REC	1	8/29/2012 7:51:16 PM
Surr: Nitrobenzene-d5	93.5	39.5-118		%REC	1	8/29/2012 7:51:16 PM
Surr: Phenol-d5	49.6	20.9-95.9		%REC	1	8/29/2012 7:51:16 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Methyl tert-butyl ether (MTBE)	44	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 6:48:21 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 6:48:21 AM
Acetone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 10:35:00 AM
Lab ID: 1208B32-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 6:48:21 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 6:48:21 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 6:48:21 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 6:48:21 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 6:48:21 AM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: Dibromofluoromethane	109	70-130		%REC	1	8/30/2012 6:48:21 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	8/30/2012 6:48:21 AM

Qualifiers:

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

Analytical Report
Lab Order **1208B32**
Date Reported: **9/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/22/2012 10:45:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:17:35 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:17:35 AM
Acetone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 7:17:35 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/22/2012 10:45:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 7:17:35 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 7:17:35 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 7:17:35 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 7:17:35 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 7:17:35 AM
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: Dibromofluoromethane	93.9	70-130		%REC	1	8/30/2012 7:17:35 AM
Surr: Toluene-d8	99.1	70-130		%REC	1	8/30/2012 7:17:35 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B32-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/29/2012 5:15:23 AM
Surr: BFB	87.1	69.8-119		%REC	1	8/29/2012 5:15:23 AM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:46:49 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:46:49 AM
Acetone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B32-004 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 7:46:49 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 7:46:49 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 7:46:49 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 7:46:49 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 7:46:49 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/30/2012 7:46:49 AM
Surr: Toluene-d8	97.3	70-130		%REC	1	8/30/2012 7:46:49 AM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5189**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147585** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3525**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3525**	RunNo: **5189**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147586** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3525** RunNo: **5189**

Prep Date: **8/29/2012** Analysis Date: **8/29/2012** SeqNo: **147561** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3525** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3525** RunNo: **5189**

Prep Date: **8/29/2012** Analysis Date: **8/29/2012** SeqNo: **147562** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
mium	0.47	0.0060	0.5000	0	94.3	85	115			
er	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

Sample ID **1208B32-002EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-10** Batch ID: **3525** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Copper	0.55	0.0060	0.5000	0	111	70	130			
Iron	0.53	0.020	0.5000	0.03049	101	70	130			
Lead	0.50	0.0050	0.5000	0	101	70	130			
Manganese	0.50	0.0020	0.5000	0.003420	99.3	70	130			
Silver	0.083	0.0050	0.1000	0	83.1	70	130			
Zinc	0.51	0.010	0.5000	0.004410	102	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B32-002EMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **OW-10**	Batch ID: **3525**	RunNo: **5404**
Prep Date: **8/29/2012**	Analysis Date: **9/10/2012**	SeqNo: **154045** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130	0.161	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.150	20	
Chromium	0.50	0.0060	0.5000	0	100	70	130	0.617	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.586	20	
Iron	0.54	0.020	0.5000	0.03049	102	70	130	0.996	20	
Lead	0.50	0.0050	0.5000	0	101	70	130	0.131	20	
Manganese	0.50	0.0020	0.5000	0.003420	99.5	70	130	0.180	20	
Silver	0.081	0.0050	0.1000	0	80.6	70	130	3.13	20	
Zinc	0.51	0.010	0.5000	0.004410	101	70	130	0.933	20	

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5231**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **159950** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID **LCS-3525**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3525**	RunNo: **5231**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **159951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0	96.2	85	115			

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5235**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148846** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5235**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148879** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
nt ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

lifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID **1208B32-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **OW-1** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID **1208B32-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **OW-1** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID **1208B37-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20	
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID **1208B33-006CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID **1208B33-006CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20	
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5322**	RunNo: **5322**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151477** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5322**	RunNo: **5322**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151478** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.9	90	110			
Bromide	2.4	0.10	2.500	0	97.7	90	110			
Phosphorus, Orthophosphate (As P	5.2	0.50	5.000	0	104	90	110			

Sample ID **1209055-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5322**	RunNo: **5322**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151480** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.8	0.10	0.5000	1.408	88.4	76.6	110			
Bromide	2.6	0.10	2.500	0.2202	96.5	83.3	107			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	74.5	115			

Sample ID **1209055-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5322**	RunNo: **5322**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151481** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.8	0.10	0.5000	1.408	84.7	76.6	110	1.00	20	
Bromide	2.6	0.10	2.500	0.2202	95.1	83.3	107	1.28	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.2	74.5	115	0.694	20	

Sample ID **1208D52-002AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5322**	RunNo: **5322**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151501** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3986	93.6	76.6	110			
Bromide	2.5	0.10	2.500	0.09376	96.1	83.3	107			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208D52-002AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5322** RunNo: **5322**

Prep Date: Analysis Date: **9/5/2012** SeqNo: **151502** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3986	94.9	76.6	110	0.710	20	
Bromide	2.5	0.10	2.500	0.09376	97.5	83.3	107	1.38	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5322** RunNo: **5322**

Prep Date: Analysis Date: **9/6/2012** SeqNo: **151543** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5322** RunNo: **5322**

Prep Date: Analysis Date: **9/6/2012** SeqNo: **151544** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ride	0.48	0.10	0.5000	0	96.6	90	110			
Bromide	2.4	0.10	2.500	0	96.6	90	110			
Phosphorus, Orthophosphate (As P	5.2	0.50	5.000	0	104	90	110			

Sample ID **1209146-002AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5322** RunNo: **5322**

Prep Date: Analysis Date: **9/6/2012** SeqNo: **151550** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.0	0.50	2.500	0.7156	90.7	76.6	110			
Bromide	12	0.50	12.50	0	95.7	83.3	107			
Phosphorus, Orthophosphate (As P	30	2.5	25.00	3.996	103	74.5	115			

Sample ID **1209146-002AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5322** RunNo: **5322**

Prep Date: Analysis Date: **9/6/2012** SeqNo: **151551** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.1	0.50	2.500	0.7156	94.5	76.6	110	3.19	20	
Bromide	12	0.50	12.50	0	96.7	83.3	107	0.991	20	
Phosphorus, Orthophosphate (As P	30	2.5	25.00	3.996	103	74.5	115	0.532	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3489**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID **LCS-3489**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.2	74	157			
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID **LCSD-3489**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.5	74	157	5.19	23	
Surr: DNOP	0.52		0.5000		104	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.6	75.9	119			
Surr: BFB	18		20.00		87.8	69.8	119			

Sample ID **1208A51-009AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146896** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.84	0.050	0.5000	0.1474	138	63.5	131			S
Surr: BFB	24		20.00		118	69.8	119			

Sample ID **1208A51-009AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146897** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.84	0.050	0.5000	0.1474	138	63.5	131	0.454	16.7	S
Surr: BFB	26		20.00		132	69.8	119	0	0	S

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146941** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146942** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		97.7	55	140			

Sample ID **1208A51-008AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146945** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		99.3	55	140			

Sample ID **1208A51-008AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5164**	RunNo: **5164**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146946** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		97.6	55	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147638** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
'anone	ND	10								
on disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147638** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Toluene	21	1.0	20.00	0	103	80	120			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147640** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.7	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.6	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1208b32-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **147829** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.3	66.8	128			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.9	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1208b32-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **147831** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.5	66.8	128	0.291	16.7	
Toluene	21	1.0	20.00	0	103	70	130	4.19	18.7	
Chlorobenzene	20	1.0	20.00	0	102	70	130	0.235	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130	2.39	16.7	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b32-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **OW-1**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **147831** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	1.31	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		98.9	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147929** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147929** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147886** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147886** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147888** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Toluene	21	1.0	20.00	0	103	80	120			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID **1208981-001AMS**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **BatchQC**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147934** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	2.0	40.00	0.8444	91.3	66.8	128			
Chlorobenzene	38	2.0	40.00	0	94.0	70	130			
1,1-Dichloroethene	38	2.0	40.00	0	96.1	70	130			
Toluene	41	2.0	40.00	0	102	70	130			
Trichloroethene (TCE)	35	2.0	40.00	0	87.5	70	130			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	70	130			
Surr: Dibromofluoromethane	19		20.00		95.3	70	130			
Surr: Toluene-d8	19		20.00		94.7	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208981-001AMSD** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles, Table I**

Client ID: **BatchQC** Batch ID: **R5192** RunNo: **5192**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147936** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0.8444	98.8	66.8	128	7.78	16.7	
Chlorobenzene	36	2.0	40.00	0	89.2	70	130	5.30	19.5	
1,1-Dichloroethene	38	2.0	40.00	0	96.2	70	130	0.0583	16.7	
Toluene	37	2.0	40.00	0	91.9	70	130	10.5	18.7	
Trichloroethene (TCE)	35	2.0	40.00	0	87.6	70	130	0.0994	17.5	
Surr: 1,2-Dichloroethane-d4	19		20.00		95.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	19		20.00		95.3	70	130	0	0	
Surr: Dibromofluoromethane	21		20.00		103	70	130	0	0	
Surr: Toluene-d8	18		20.00		90.1	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208B32**

Hall Environmental Analysis Laboratory, Inc.

19-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B32**

19-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208B32

Received by/date: CM 08/24/12

Logged By: Anne Thorne — 8/24/2012 3:40:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/27/2012 — Anne Thorne

Reviewed By: JPG — 08/27/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208B32	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
8/22/12	1010	GW	OW-1	11		-001	X	X	X
8/22/12	1035	GW	OW-10	11		-002	X	X	X
8/22/12	1045	W	Field Blank	3		-003	X		
8/22/12	—	W	Trip Blank	3		-004	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				08/24/12	1540

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

September 21, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B33

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B33**
Date Reported: **9/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-001 **Matrix:** AQUEOUS

Client Sample ID: BW-1C
Collection Date: 8/24/2012 9:20:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	2.3	0.10		mg/L	1	8/27/2012 10:24:38 PM
Chloride	34	10		mg/L	20	8/27/2012 10:37:04 PM
Bromide	ND	0.10		mg/L	1	8/27/2012 10:24:38 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 10:24:38 PM
Sulfate	260	10		mg/L	20	8/27/2012 10:37:04 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 8:35:36 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.016	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Calcium	3.2	1.0		mg/L	1	9/12/2012 6:57:24 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 6:57:24 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 6:57:24 PM
Iron	ND	0.020		mg/L	1	9/12/2012 6:57:24 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 6:57:24 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 6:57:24 PM
Manganese	0.0029	0.0020		mg/L	1	9/12/2012 6:57:24 PM
Potassium	1.1	1.0		mg/L	1	9/12/2012 6:57:24 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 6:57:24 PM
Sodium	330	5.0		mg/L	5	9/12/2012 7:01:25 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 6:57:24 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.028	0.0020		mg/L	1	9/10/2012 7:39:05 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:39:05 AM
Chromium	0.22	0.0060	*	mg/L	1	9/10/2012 7:39:05 AM
Copper	0.0062	0.0060		mg/L	1	9/10/2012 7:39:05 AM
Iron	0.49	0.020	*	mg/L	1	9/10/2012 7:39:05 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:39:05 AM
Manganese	0.068	0.0020	*	mg/L	1	9/10/2012 7:39:05 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:47:22 AM
Zinc	0.011	0.010		mg/L	1	9/10/2012 7:39:05 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/6/2012 2:48:50 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 2:48:50 PM
Uranium	0.0050	0.0010		mg/L	1	9/6/2012 2:48:50 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
Uranium	0.0052	0.0025		mg/L	2.5	8/30/2012 3:56:26 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-1C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:20:00 AM
Lab ID: 1208B33-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:22:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Aniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Carbazole	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Chrysene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-1C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:20:00 AM
Lab ID: 1208B33-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Fluorene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Isophorone	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 8:21:13 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Phenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pyrene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Pyridine	ND	10		µg/L	1	8/29/2012 8:21:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:21:13 PM
Surr: 2,4,6-Tribromophenol	93.7	44.2-126		%REC	1	8/29/2012 8:21:13 PM
Surr: 2-Fluorobiphenyl	79.1	37-114		%REC	1	8/29/2012 8:21:13 PM
Surr: 2-Fluorophenol	62.7	23.4-98		%REC	1	8/29/2012 8:21:13 PM
Surr: 4-Terphenyl-d14	73.3	41.3-116		%REC	1	8/29/2012 8:21:13 PM
Surr: Nitrobenzene-d5	86.5	39.5-118		%REC	1	8/29/2012 8:21:13 PM
Surr: Phenol-d5	51.4	20.9-95.9		%REC	1	8/29/2012 8:21:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-1C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:20:00 AM
Lab ID: 1208B33-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 2:57:47 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 2:57:47 PM
Acetone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-1C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:20:00 AM
Lab ID: 1208B33-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 2:57:47 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 2:57:47 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 2:57:47 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 2:57:47 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 2:57:47 PM
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: Dibromofluoromethane	86.1	70-130		%REC	1	8/31/2012 2:57:47 PM
Surr: Toluene-d8	83.4	70-130		%REC	1	8/31/2012 2:57:47 PM

Qualifiers:

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

Analytical Report
Lab Order **1208B33**
Date Reported: **9/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-002 **Matrix:** AQUEOUS

Client Sample ID: BW-2A
Collection Date: 8/24/2012 10:15:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.95	0.10		mg/L	1	8/28/2012 1:18:27 AM
Chloride	38	10		mg/L	20	8/28/2012 1:30:52 AM
Bromide	0.54	0.10		mg/L	1	8/28/2012 1:18:27 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 1:18:27 AM
Sulfate	6.8	0.50		mg/L	1	8/28/2012 1:18:27 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 8:48:01 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.14	0.0020		mg/L	1	9/12/2012 7:05:08 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:05:08 PM
Calcium	8.8	1.0		mg/L	1	9/12/2012 7:05:08 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:05:08 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:05:08 PM
Iron	0.26	0.020		mg/L	1	9/12/2012 7:05:08 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:05:08 PM
Magnesium	3.4	1.0		mg/L	1	9/12/2012 7:05:08 PM
Manganese	0.13	0.0020	*	mg/L	1	9/12/2012 7:05:08 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 7:05:08 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:05:08 PM
Sodium	340	5.0		mg/L	5	9/12/2012 7:09:09 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 7:05:08 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.15	0.0020		mg/L	1	9/10/2012 7:58:12 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 7:58:12 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 7:58:12 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 7:58:12 AM
Iron	0.49	0.020	*	mg/L	1	9/10/2012 7:58:12 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 7:58:12 AM
Manganese	0.16	0.0020	*	mg/L	1	9/10/2012 7:58:12 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:51:04 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 7:58:12 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0072	0.0010		mg/L	1	9/6/2012 2:52:46 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 2:52:46 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 2:52:46 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0072	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:08:16 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:15:00 AM
Lab ID: 1208B33-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:24:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Aniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Carbazole	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Chrysene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:15:00 AM
Lab ID: 1208B33-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Fluorene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Isophorone	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 8:50:54 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Phenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pyrene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Pyridine	ND	10		µg/L	1	8/29/2012 8:50:54 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 8:50:54 PM
Surr: 2,4,6-Tribromophenol	83.2	44.2-126		%REC	1	8/29/2012 8:50:54 PM
Surr: 2-Fluorobiphenyl	65.0	37-114		%REC	1	8/29/2012 8:50:54 PM
Surr: 2-Fluorophenol	47.7	23.4-98		%REC	1	8/29/2012 8:50:54 PM
Surr: 4-Terphenyl-d14	64.6	41.3-116		%REC	1	8/29/2012 8:50:54 PM
Surr: Nitrobenzene-d5	67.5	39.5-118		%REC	1	8/29/2012 8:50:54 PM
Surr: Phenol-d5	36.8	20.9-95.9		%REC	1	8/29/2012 8:50:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:15:00 AM
Lab ID: 1208B33-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:21:16 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:21:16 PM
Acetone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2A
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:15:00 AM
Lab ID: 1208B33-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:21:16 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:21:16 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:21:16 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:21:16 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:21:16 PM
Surr: 1,2-Dichloroethane-d4	86.4	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: 4-Bromofluorobenzene	84.9	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: Dibromofluoromethane	83.4	70-130		%REC	1	8/31/2012 4:21:16 PM
Surr: Toluene-d8	84.2	70-130		%REC	1	8/31/2012 4:21:16 PM

Qualifiers:

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

Analytical Report
Lab Order **1208B33**
Date Reported: **9/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-003 **Matrix:** AQUEOUS

Client Sample ID: BW-2B
Collection Date: 8/24/2012 10:00:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.3	0.10		mg/L	1	8/28/2012 2:08:06 AM
Chloride	27	10		mg/L	20	8/28/2012 2:20:31 AM
Bromide	0.22	0.10		mg/L	1	8/28/2012 2:08:06 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 2:08:06 AM
Sulfate	150	10		mg/L	20	8/28/2012 2:20:31 AM
Nitrate+Nitrite as N	1.4	1.0		mg/L	5	8/28/2012 9:00:26 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.043	0.0020		mg/L	1	9/12/2012 7:31:20 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:31:20 PM
Calcium	13	1.0		mg/L	1	9/12/2012 7:31:20 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:31:20 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:31:20 PM
Iron	0.064	0.020		mg/L	1	9/12/2012 7:31:20 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:31:20 PM
Magnesium	3.2	1.0		mg/L	1	9/12/2012 7:31:20 PM
Manganese	0.16	0.0020	*	mg/L	1	9/12/2012 7:31:20 PM
Potassium	1.8	1.0		mg/L	1	9/12/2012 7:31:20 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:31:20 PM
Sodium	590	10		mg/L	10	9/13/2012 11:33:51 AM
Zinc	0.030	0.010		mg/L	1	9/12/2012 7:31:20 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.044	0.0020		mg/L	1	9/10/2012 8:05:45 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:05:45 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:05:45 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:05:45 AM
Iron	0.12	0.020		mg/L	1	9/10/2012 8:05:45 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:05:45 AM
Manganese	0.16	0.0020	*	mg/L	1	9/10/2012 8:05:45 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 9:54:42 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 8:05:45 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0011	0.0010		mg/L	1	9/6/2012 2:56:42 PM
Selenium	0.0019	0.0010		mg/L	1	9/6/2012 2:56:42 PM
Uranium	0.014	0.0010		mg/L	1	9/6/2012 2:56:42 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
Uranium	0.013	0.0025		mg/L	2.5	8/30/2012 4:12:12 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:00:00 AM
Lab ID: 1208B33-003
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:29:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Aniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Carbazole	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Chrysene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-003 **Matrix:** AQUEOUS

Client Sample ID: BW-2B
Collection Date: 8/24/2012 10:00:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Fluorene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Isophorone	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 9:20:43 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Phenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pyrene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Pyridine	ND	10		µg/L	1	8/29/2012 9:20:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:20:43 PM
Surr: 2,4,6-Tribromophenol	98.4	44.2-126		%REC	1	8/29/2012 9:20:43 PM
Surr: 2-Fluorobiphenyl	91.9	37-114		%REC	1	8/29/2012 9:20:43 PM
Surr: 2-Fluorophenol	63.4	23.4-98		%REC	1	8/29/2012 9:20:43 PM
Surr: 4-Terphenyl-d14	73.9	41.3-116		%REC	1	8/29/2012 9:20:43 PM
Surr: Nitrobenzene-d5	86.1	39.5-118		%REC	1	8/29/2012 9:20:43 PM
Surr: Phenol-d5	49.6	20.9-95.9		%REC	1	8/29/2012 9:20:43 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:00:00 AM
Lab ID: 1208B33-003
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:49:07 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:49:07 PM
Acetone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-003 **Matrix:** AQUEOUS

Client Sample ID: BW-2B
Collection Date: 8/24/2012 10:00:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:49:07 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:49:07 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:49:07 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:49:07 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:49:07 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: 4-Bromofluorobenzene	87.3	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: Dibromofluoromethane	86.5	70-130		%REC	1	8/31/2012 4:49:07 PM
Surr: Toluene-d8	83.1	70-130		%REC	1	8/31/2012 4:49:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	2.0	0.50		mg/L	5	8/28/2012 2:32:55 AM
Chloride	41	10		mg/L	20	8/28/2012 2:45:20 AM
Bromide	ND	0.50		mg/L	5	8/28/2012 2:32:55 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/28/2012 2:32:55 AM
Sulfate	270	10		mg/L	20	8/28/2012 2:45:20 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:12:51 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.044	0.0020		mg/L	1	9/12/2012 7:39:11 PM
Cadmium	0.0056	0.0020	*	mg/L	1	9/12/2012 7:39:11 PM
Calcium	3.3	1.0		mg/L	1	9/12/2012 7:39:11 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:39:11 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:39:11 PM
Iron	3.0	0.10	*	mg/L	5	9/12/2012 7:43:02 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:39:11 PM
Magnesium	1.5	1.0		mg/L	1	9/12/2012 7:39:11 PM
Manganese	0.049	0.0020		mg/L	1	9/12/2012 7:39:11 PM
Potassium	1.8	1.0		mg/L	1	9/12/2012 7:39:11 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:39:11 PM
Sodium	320	5.0		mg/L	5	9/12/2012 7:43:02 PM
Zinc	0.014	0.010		mg/L	1	9/12/2012 7:39:11 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.086	0.0020		mg/L	1	9/10/2012 8:26:29 AM
Cadmium	0.013	0.0020	*	mg/L	1	9/10/2012 8:26:29 AM
Chromium	0.013	0.0060		mg/L	1	9/10/2012 8:26:29 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:26:29 AM
Iron	2.9	0.10	*	mg/L	5	9/10/2012 8:30:53 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:26:29 AM
Manganese	0.12	0.0020	*	mg/L	1	9/10/2012 8:26:29 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:11:47 AM
Zinc	0.025	0.010		mg/L	1	9/10/2012 8:26:29 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/6/2012 3:00:38 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 3:00:38 PM
Uranium	0.0048	0.0010		mg/L	1	9/6/2012 3:00:38 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
Uranium	0.0047	0.0025		mg/L	2.5	8/30/2012 4:16:08 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:31:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Aniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Carbazole	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Chrysene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Fluorene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Isophorone	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 9:50:33 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Phenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pyrene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Pyridine	ND	10		µg/L	1	8/29/2012 9:50:33 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 9:50:33 PM
Surr: 2,4,6-Tribromophenol	99.8	44.2-126		%REC	1	8/29/2012 9:50:33 PM
Surr: 2-Fluorobiphenyl	89.6	37-114		%REC	1	8/29/2012 9:50:33 PM
Surr: 2-Fluorophenol	66.2	23.4-98		%REC	1	8/29/2012 9:50:33 PM
Surr: 4-Terphenyl-d14	73.6	41.3-116		%REC	1	8/29/2012 9:50:33 PM
Surr: Nitrobenzene-d5	87.5	39.5-118		%REC	1	8/29/2012 9:50:33 PM
Surr: Phenol-d5	50.6	20.9-95.9		%REC	1	8/29/2012 9:50:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:16:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:16:53 PM
Acetone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-2C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 9:45:00 AM
Lab ID: 1208B33-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 5:16:53 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 5:16:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 5:16:53 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 5:16:53 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 5:16:53 PM
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: Dibromofluoromethane	90.1	70-130		%REC	1	8/31/2012 5:16:53 PM
Surr: Toluene-d8	85.2	70-130		%REC	1	8/31/2012 5:16:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:45:00 PM
Lab ID: 1208B33-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.2	0.10		mg/L	1	8/28/2012 3:22:35 AM
Chloride	33	2.5		mg/L	5	9/5/2012 7:04:05 PM
Bromide	0.39	0.10		mg/L	1	8/28/2012 3:22:35 AM
Phosphorus, Orthophosphate (As P)	0.82	0.50	H	mg/L	1	8/28/2012 3:22:35 AM
Sulfate	46	10		mg/L	20	8/28/2012 3:35:00 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:25:16 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.091	0.0020		mg/L	1	9/12/2012 7:46:40 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:46:40 PM
Calcium	8.6	1.0		mg/L	1	9/12/2012 7:46:40 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:46:40 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:46:40 PM
Iron	0.11	0.020		mg/L	1	9/12/2012 7:46:40 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:46:40 PM
Magnesium	2.7	1.0		mg/L	1	9/12/2012 7:46:40 PM
Manganese	0.11	0.0020	*	mg/L	1	9/12/2012 7:46:40 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 7:46:40 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:46:40 PM
Sodium	400	5.0		mg/L	5	9/12/2012 7:50:38 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 7:46:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.22	0.0020		mg/L	1	9/10/2012 8:44:51 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:44:51 AM
Chromium	0.010	0.0060		mg/L	1	9/10/2012 8:44:51 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:44:51 AM
Iron	3.6	0.10	*	mg/L	5	9/10/2012 8:47:40 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:44:51 AM
Manganese	0.22	0.0020	*	mg/L	1	9/10/2012 8:44:51 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:14:56 AM
Zinc	0.014	0.010		mg/L	1	9/10/2012 8:44:51 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0049	0.0010		mg/L	1	9/6/2012 3:12:29 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 3:12:29 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:12:29 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0044	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:20:04 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:45:00 PM
Lab ID: 1208B33-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:36:57 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Aniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Carbazole	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Chrysene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:45:00 PM
Lab ID: 1208B33-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Fluorene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Isophorone	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Naphthalene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 10:38:57 AM
Phenanthrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Phenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pyrene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Pyridine	ND	10		µg/L	1	8/31/2012 10:38:57 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 10:38:57 AM
Surr: 2,4,6-Tribromophenol	82.4	44.2-126		%REC	1	8/31/2012 10:38:57 AM
Surr: 2-Fluorobiphenyl	66.3	37-114		%REC	1	8/31/2012 10:38:57 AM
Surr: 2-Fluorophenol	46.3	23.4-98		%REC	1	8/31/2012 10:38:57 AM
Surr: 4-Terphenyl-d14	60.3	41.3-116		%REC	1	8/31/2012 10:38:57 AM
Surr: Nitrobenzene-d5	65.5	39.5-118		%REC	1	8/31/2012 10:38:57 AM
Surr: Phenol-d5	41.0	20.9-95.9		%REC	1	8/31/2012 10:38:57 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:45:00 PM
Lab ID: 1208B33-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:44:34 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:44:34 PM
Acetone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3B
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:45:00 PM
Lab ID: 1208B33-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 5:44:34 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 5:44:34 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 5:44:34 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 5:44:34 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 5:44:34 PM
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	8/31/2012 5:44:34 PM
Surr: Toluene-d8	82.0	70-130		%REC	1	8/31/2012 5:44:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:40:00 PM
Lab ID: 1208B33-006
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.1	0.10		mg/L	1	8/28/2012 3:47:24 AM
Chloride	38	2.5		mg/L	5	9/8/2012 2:22:23 AM
Bromide	0.11	0.10		mg/L	1	8/28/2012 3:47:24 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 3:47:24 AM
Sulfate	310	10		mg/L	20	8/28/2012 3:59:50 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:37:41 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.035	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Calcium	3.9	1.0		mg/L	1	9/12/2012 7:54:30 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 7:54:30 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 7:54:30 PM
Iron	0.031	0.020		mg/L	1	9/12/2012 7:54:30 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 7:54:30 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 7:54:30 PM
Manganese	0.017	0.0020		mg/L	1	9/12/2012 7:54:30 PM
Potassium	1.6	1.0		mg/L	1	9/12/2012 7:54:30 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 7:54:30 PM
Sodium	390	5.0		mg/L	5	9/12/2012 8:00:08 PM
Zinc	0.012	0.010		mg/L	1	9/12/2012 7:54:30 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.043	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:50:28 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:50:28 AM
Iron	0.34	0.020	*	mg/L	1	9/10/2012 8:50:28 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:50:28 AM
Manganese	0.022	0.0020		mg/L	1	9/10/2012 8:50:28 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:18:22 AM
Zinc	0.012	0.010		mg/L	1	9/10/2012 8:50:28 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0022	0.0010		mg/L	1	9/6/2012 3:16:25 PM
Selenium	ND	0.0010		mg/L	1	9/6/2012 3:16:25 PM
Uranium	0.0014	0.0010		mg/L	1	9/6/2012 3:16:25 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
Selenium	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 4:24:00 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:40:00 PM
Lab ID: 1208B33-006
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:38:44 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Aniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Carbazole	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Chrysene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:40:00 PM
Lab ID: 1208B33-006
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Fluorene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Isophorone	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Naphthalene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 11:08:20 AM
Phenanthrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Phenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pyrene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Pyridine	ND	10		µg/L	1	8/31/2012 11:08:20 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:08:20 AM
Surr: 2,4,6-Tribromophenol	78.4	44.2-126		%REC	1	8/31/2012 11:08:20 AM
Surr: 2-Fluorobiphenyl	55.2	37-114		%REC	1	8/31/2012 11:08:20 AM
Surr: 2-Fluorophenol	37.1	23.4-98		%REC	1	8/31/2012 11:08:20 AM
Surr: 4-Terphenyl-d14	54.6	41.3-116		%REC	1	8/31/2012 11:08:20 AM
Surr: Nitrobenzene-d5	44.8	39.5-118		%REC	1	8/31/2012 11:08:20 AM
Surr: Phenol-d5	32.7	20.9-95.9		%REC	1	8/31/2012 11:08:20 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM

Qualifiers:

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P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:40:00 PM
Lab ID: 1208B33-006
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:12:15 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:12:15 PM
Acetone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: BW-3C
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 5:40:00 PM
Lab ID: 1208B33-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 6:12:15 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 6:12:15 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 6:12:15 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 6:12:15 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 6:12:15 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: 4-Bromofluorobenzene	84.0	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: Dibromofluoromethane	84.3	70-130		%REC	1	8/31/2012 6:12:15 PM
Surr: Toluene-d8	82.0	70-130		%REC	1	8/31/2012 6:12:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 11:30:00 AM
Lab ID: 1208B33-007
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:39:56 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 6:39:56 PM
Acetone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 6:39:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B33-007 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012 11:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 6:39:56 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 6:39:56 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 6:39:56 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 6:39:56 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 6:39:56 PM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: Dibromofluoromethane	84.4	70-130		%REC	1	8/31/2012 6:39:56 PM
Surr: Toluene-d8	83.2	70-130		%REC	1	8/31/2012 6:39:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B33-008 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:07:35 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:07:35 PM
Acetone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 7:07:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B33-008 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 7:07:35 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 7:07:35 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 7:07:35 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 7:07:35 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 7:07:35 PM
Surr: 1,2-Dichloroethane-d4	82.8	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: 4-Bromofluorobenzene	84.4	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: Dibromofluoromethane	82.8	70-130		%REC	1	8/31/2012 7:07:35 PM
Surr: Toluene-d8	84.3	70-130		%REC	1	8/31/2012 7:07:35 PM

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157472** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C13-006AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	61	1.0	50.00	10.91	99.6	70	130			

Sample ID **1208C13-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	62	1.0	50.00	10.91	102	70	130	1.97	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157572** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0.04813	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157633** Units: **mg/L**

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

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3526** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154030** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Lead	0.49	0.0050	0.5000	0	98.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.1	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID **1208B33-003EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BW-2B** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154057** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04450	106	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			
Iron	0.66	0.020	0.5000	0.1192	108	70	130			
Lead	0.52	0.0050	0.5000	0	105	70	130			
Manganese	0.68	0.0020	0.5000	0.1610	104	70	130			
Zinc	0.53	0.010	0.5000	0.001530	106	70	130			

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BW-2B** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154058** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BW-2B** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.04450	104	70	130	1.69	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	1.27	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	1.19	20	
Copper	0.56	0.0060	0.5000	0	112	70	130	1.83	20	
Iron	0.65	0.020	0.5000	0.1192	105	70	130	2.21	20	
Lead	0.52	0.0050	0.5000	0	103	70	130	1.18	20	
Manganese	0.67	0.0020	0.5000	0.1610	101	70	130	2.31	20	
Zinc	0.53	0.010	0.5000	0.001530	105	70	130	1.02	20	

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3526** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	96.8	85	115			

Sample ID **1208B33-003EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BW-2B** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155112** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.065	0.0050	0.1000	0	64.6	70	130			S

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BW-2B** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155113** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.069	0.0050	0.1000	0	69.3	70	130	6.99	20	S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**	
Client ID: **PBW**	Batch ID: **3526**	RunNo: **5235**	
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148847**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3526**	RunNo: **5235**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148880** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- C Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BW-2C**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BW-2C**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID **1208B32-001CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID **1208B32-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID **1208B37-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20	
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID **1208B33-006CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BW-3C**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID **1208B33-006CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BW-3C**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20	
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20	

Qualifiers:

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- E Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151555**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151556**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			

Sample ID **1209077-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151574**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	108	87.8	111			

Sample ID **1209077-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151575**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	107	87.8	111	0.305	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R5394**	RunNo: **5394**							
Prep Date:	Analysis Date: **9/7/2012**	SeqNo: **153780**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R5394**	RunNo: **5394**							
Prep Date:	Analysis Date: **9/7/2012**	SeqNo: **153781**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.8	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R5394**	RunNo: **5394**							
Prep Date:	Analysis Date: **9/7/2012**	SeqNo: **153834**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5394**	RunNo: **5394**
Prep Date:	Analysis Date: **9/7/2012**	SeqNo: **153835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150166** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

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

Client ID: **LCSW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

Sample ID **1208b33-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BW-1C** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150105** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **1208b33-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BW-1C** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150106** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7	
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5	
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0	
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
C[illegible]form	ND	1.0								
C[illegible]methane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150143** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b42-003a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			

Sample ID **1208b42-003a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150145** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7	
Toluene	19	1.0	20.00	0	93.1	70	130	11.3	18.7	
Chlorobenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0	
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0	

Sample ID **b7** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID **100ng lcs3** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID **1208c45-009a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

Sample ID **1208c45-009a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150177** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B33**

21-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **3504** RunNo: **5185**

Prep Date: **8/28/2012** Analysis Date: **8/29/2012** SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **3504** RunNo: **5185**

Prep Date: **8/28/2012** Analysis Date: **8/29/2012** SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1208B33

Received by/date: LM 08/24/12

Logged By: **Anne Thorne** 8/24/2012 3:40:00 PM Anne Thorne

Completed By: **Anne Thorne** 8/27/2012 Anne Thorne

Reviewed By: JPG 08/27/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☑ No ☑ AJ 8/27/12 NA ☐ 08/27/12
    Added 1mL HNO3 to -003E for acceptable pH
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 18
(<2 or >12 unless noted)
Adjusted? YES
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208B33	Analysis Request: WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
~~8/24/12~~	~~0920~~	~~GW~~	~~BW-1A~~				~~X~~	
~~8/24/12~~	~~1015~~	~~GW~~	~~BW-1B~~				~~X~~	
8/24/12	0920	GW	BW-1C	8		001	X	
8/24/12	1015	GW	BW-2A	8		002	X	
8/24/12	1000	GW	BW-2B	8		003	X	
8/24/12	0945	GW	BW-2C	8		004	X	
~~8/24/12~~	~~1130~~	~~GW~~	~~BW-3A~~				~~X~~	
8/25/12	1745	GW	BW-3B	8		005	X	
8/25/12	1740	GW	BW-3C	8		006	X	
8/24/12	1130	W	Field Blank	3		007	X	
8/24/12	—	W	Trip Blank	3		008	X	

Date	Time	Relinquished by:	Received by:	Date	Time
8/24/12	1540			8/24/12	1540
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

September 24, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 GW

OrderNo.: 1208A02

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208A02**
Date Reported: **9/24/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 8/21/2012 6:45:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 5:39:27 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 5:39:27 PM
Surr: DNOP	138	79.5-166		%REC	1	8/23/2012 5:39:27 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	8/24/2012 6:21:40 PM
Surr: BFB	103	69.8-119		%REC	5	8/24/2012 6:21:40 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	3.0	0.50		mg/L	5	8/23/2012 11:03:31 AM
Chloride	1200	50		mg/L	100	8/23/2012 11:15:55 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/22/2012 8:33:17 PM
Bromide	2.5	0.50		mg/L	5	8/22/2012 8:33:17 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/22/2012 8:33:17 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/23/2012 11:03:31 AM
Sulfate	140	2.5		mg/L	5	8/22/2012 8:33:17 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	1.1	0.010		mg/L	5	9/12/2012 11:42:26 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 11:24:13 AM
Calcium	320	5.0		mg/L	5	9/12/2012 11:42:26 AM
Chromium	ND	0.0060		mg/L	1	9/12/2012 11:24:13 AM
Copper	ND	0.0060		mg/L	1	9/12/2012 11:24:13 AM
Iron	6.8	0.40	*	mg/L	20	9/12/2012 3:35:08 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 11:24:13 AM
Magnesium	75	1.0		mg/L	1	9/12/2012 11:24:13 AM
Manganese	3.1	0.010	*	mg/L	5	9/12/2012 11:42:26 AM
Potassium	4.1	1.0		mg/L	1	9/12/2012 11:24:13 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 11:24:13 AM
Sodium	990	20		mg/L	20	9/12/2012 3:35:08 PM
Zinc	0.030	0.010		mg/L	1	9/12/2012 11:24:13 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	1.1	0.010		mg/L	5	9/5/2012 10:38:25 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 10:35:01 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 10:35:01 AM
Copper	0.0091	0.0060		mg/L	1	9/5/2012 10:35:01 AM
Iron	9.8	0.40	*	mg/L	20	9/6/2012 11:26:00 AM
Lead	0.0056	0.0050		mg/L	1	9/5/2012 10:35:01 AM
Manganese	3.1	0.010	*	mg/L	5	9/5/2012 10:38:25 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 10:35:01 AM
Zinc	0.019	0.010		mg/L	1	9/5/2012 10:35:01 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 8/21/2012 6:45:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.082	0.0050	*	mg/L	5	9/6/2012 4:19:26 PM
Selenium	0.0076	0.0050		mg/L	5	9/6/2012 4:19:26 PM
Uranium	0.0038	0.0010		mg/L	1	9/6/2012 2:05:31 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.090	0.0025	*	mg/L	2.5	9/6/2012 5:45:42 PM
Selenium	0.0075	0.0025		mg/L	2.5	9/6/2012 5:45:42 PM
Uranium	0.0052	0.0025		mg/L	2.5	9/13/2012 1:26:30 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:13:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Aniline	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Anthracene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Azobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Benzoic acid	ND	20		µg/L	1	8/29/2012 2:49:51 AM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Carbazole	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Chrysene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 2:49:51 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:45:00 PM
Lab ID: 1208A02-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 2:49:51 AM
2,4-Dimethylphenol	32	10		µg/L	1	8/29/2012 2:49:51 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 2:49:51 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 2:49:51 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Fluoranthene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Fluorene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Isophorone	ND	10		µg/L	1	8/29/2012 2:49:51 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 2:49:51 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 2:49:51 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Naphthalene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 2:49:51 AM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 2:49:51 AM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 2:49:51 AM
Phenanthrene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Phenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Pyrene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Pyridine	ND	10		µg/L	1	8/29/2012 2:49:51 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 2:49:51 AM
Surr: 2,4,6-Tribromophenol	97.0	44.2-126		%REC	1	8/29/2012 2:49:51 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:45:00 PM
Lab ID: 1208A02-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	89.0	37-114		%REC	1	8/29/2012 2:49:51 AM
Surr: 2-Fluorophenol	61.1	23.4-98		%REC	1	8/29/2012 2:49:51 AM
Surr: 4-Terphenyl-d14	63.4	41.3-116		%REC	1	8/29/2012 2:49:51 AM
Surr: Nitrobenzene-d5	84.4	39.5-118		%REC	1	8/29/2012 2:49:51 AM
Surr: Phenol-d5	51.8	20.9-95.9		%REC	1	8/29/2012 2:49:51 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	7.8	1.0		µg/L	1	8/25/2012 5:30:59 AM
Toluene	2.4	1.0		µg/L	1	8/25/2012 5:30:59 AM
Ethylbenzene	3.5	1.0		µg/L	1	8/25/2012 5:30:59 AM
Methyl tert-butyl ether (MTBE)	44	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2,4-Trimethylbenzene	9.7	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,3,5-Trimethylbenzene	1.9	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
1-Methylnaphthalene	13	4.0		µg/L	1	8/25/2012 5:30:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:30:59 AM
Acetone	ND	10		µg/L	1	8/25/2012 5:30:59 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 5:30:59 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 5:30:59 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 5:30:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 5:30:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 8/21/2012 6:45:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 5:30:59 AM
Isopropylbenzene	1.1	1.0		µg/L	1	8/25/2012 5:30:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 5:30:59 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 5:30:59 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 5:30:59 AM
n-Propylbenzene	2.2	1.0		µg/L	1	8/25/2012 5:30:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 5:30:59 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 5:30:59 AM
Xylenes, Total	15	1.5		µg/L	1	8/25/2012 5:30:59 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/25/2012 5:30:59 AM
Surr: 4-Bromofluorobenzene	95.4	70-130		%REC	1	8/25/2012 5:30:59 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/25/2012 5:30:59 AM
Surr: Toluene-d8	98.4	70-130		%REC	1	8/25/2012 5:30:59 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-002 **Matrix:** AQUEOUS

Client Sample ID: GWM-2
Collection Date: 8/21/2012 6:35:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 6:01:26 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 6:01:26 PM
Surr: DNOP	137	79.5-166		%REC	1	8/23/2012 6:01:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	8/24/2012 6:51:53 PM
Surr: BFB	102	69.8-119		%REC	5	8/24/2012 6:51:53 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	2.8	0.50		mg/L	5	8/23/2012 11:28:20 AM
Chloride	1200	50		mg/L	100	8/23/2012 12:17:59 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/22/2012 10:49:47 PM
Bromide	3.4	0.50		mg/L	5	8/22/2012 10:49:47 PM
Nitrogen, Nitrate (As N)	14	0.50	*	mg/L	5	8/22/2012 10:49:47 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/23/2012 11:28:20 AM
Sulfate	1400	25		mg/L	50	8/23/2012 11:40:46 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.033	0.0020		mg/L	1	9/12/2012 11:46:08 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 11:46:08 AM
Calcium	430	5.0		mg/L	5	9/12/2012 11:50:07 AM
Chromium	ND	0.0060		mg/L	1	9/12/2012 11:46:08 AM
Copper	0.041	0.0060		mg/L	1	9/12/2012 11:46:08 AM
Iron	0.13	0.020		mg/L	1	9/12/2012 11:46:08 AM
Lead	0.012	0.0050		mg/L	1	9/12/2012 11:46:08 AM
Magnesium	82	1.0		mg/L	1	9/12/2012 11:46:08 AM
Manganese	0.55	0.0020	*	mg/L	1	9/12/2012 11:46:08 AM
Potassium	4.2	1.0		mg/L	1	9/12/2012 11:46:08 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 3:38:54 PM
Sodium	1300	20		mg/L	20	9/12/2012 3:42:54 PM
Zinc	0.039	0.010		mg/L	1	9/12/2012 11:46:08 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.040	0.0020		mg/L	1	9/5/2012 10:41:37 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 10:41:37 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 10:41:37 AM
Copper	0.045	0.0060		mg/L	1	9/5/2012 10:41:37 AM
Iron	0.44	0.020	*	mg/L	1	9/5/2012 10:41:37 AM
Lead	0.0071	0.0050		mg/L	1	9/5/2012 10:41:37 AM
Manganese	0.45	0.0020	*	mg/L	1	9/5/2012 10:41:37 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 10:41:37 AM
Zinc	0.025	0.010		mg/L	1	9/5/2012 10:41:37 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-2
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:35:00 PM
Lab ID: 1208A02-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0069	0.0050		mg/L	5	9/6/2012 4:23:22 PM
Selenium	0.012	0.0050		mg/L	5	9/6/2012 4:23:22 PM
Uranium	0.12	0.0050	*	mg/L	5	9/6/2012 4:23:22 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0066	0.0025		mg/L	2.5	9/6/2012 5:47:34 PM
Selenium	0.0099	0.0025		mg/L	2.5	9/6/2012 5:47:34 PM
Uranium	0.12	0.0050	*	mg/L	5	9/13/2012 1:28:22 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:15:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Aniline	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Anthracene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Azobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Benzoic acid	ND	20		µg/L	1	8/29/2012 3:19:15 AM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Carbazole	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Chrysene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 3:19:15 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-002 **Matrix:** AQUEOUS

Client Sample ID: GWM-2
Collection Date: 8/21/2012 6:35:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 3:19:15 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 3:19:15 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 3:19:15 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Fluoranthene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Fluorene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Isophorone	ND	10		µg/L	1	8/29/2012 3:19:15 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 3:19:15 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 3:19:15 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Naphthalene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 3:19:15 AM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 3:19:15 AM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 3:19:15 AM
Phenanthrene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Phenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Pyrene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Pyridine	ND	10		µg/L	1	8/29/2012 3:19:15 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 3:19:15 AM
Surr: 2,4,6-Tribromophenol	91.3	44.2-126		%REC	1	8/29/2012 3:19:15 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-2
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:35:00 PM
Lab ID: 1208A02-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	90.4	37-114		%REC	1	8/29/2012 3:19:15 AM
Surr: 2-Fluorophenol	51.9	23.4-98		%REC	1	8/29/2012 3:19:15 AM
Surr: 4-Terphenyl-d14	67.2	41.3-116		%REC	1	8/29/2012 3:19:15 AM
Surr: Nitrobenzene-d5	91.9	39.5-118		%REC	1	8/29/2012 3:19:15 AM
Surr: Phenol-d5	50.5	20.9-95.9		%REC	1	8/29/2012 3:19:15 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Methyl tert-butyl ether (MTBE)	2.6	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:59:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 5:59:12 AM
Acetone	ND	10		µg/L	1	8/25/2012 5:59:12 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 5:59:12 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 5:59:12 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 5:59:12 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 5:59:12 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-002 **Matrix:** AQUEOUS

Client Sample ID: GWM-2
Collection Date: 8/21/2012 6:35:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 5:59:12 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 5:59:12 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 5:59:12 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 5:59:12 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 5:59:12 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 5:59:12 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 5:59:12 AM
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	8/25/2012 5:59:12 AM
Surr: 4-Bromofluorobenzene	96.9	70-130		%REC	1	8/25/2012 5:59:12 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/25/2012 5:59:12 AM
Surr: Toluene-d8	100	70-130		%REC	1	8/25/2012 5:59:12 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-3
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:15:00 PM
Lab ID: 1208A02-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 6:23:18 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 6:23:18 PM
Surr: DNOP	135	79.5-166		%REC	1	8/23/2012 6:23:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	8/24/2012 7:22:05 PM
Surr: BFB	103	69.8-119		%REC	5	8/24/2012 7:22:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	4.9	0.50	*	mg/L	5	9/4/2012 5:44:24 PM
Chloride	1200	50		mg/L	100	8/23/2012 12:30:24 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/22/2012 11:14:37 PM
Bromide	2.5	0.50		mg/L	5	8/22/2012 11:14:37 PM
Nitrogen, Nitrate (As N)	43	2.0	*	mg/L	20	8/23/2012 12:04:15 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	8/23/2012 12:04:15 AM
Sulfate	1500	25		mg/L	50	8/23/2012 12:42:48 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.029	0.0020		mg/L	1	9/12/2012 11:53:55 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 11:53:55 AM
Calcium	390	5.0		mg/L	5	9/12/2012 11:57:46 AM
Chromium	ND	0.0060		mg/L	1	9/12/2012 11:53:55 AM
Copper	0.23	0.0060		mg/L	1	9/12/2012 11:53:55 AM
Iron	0.88	0.020	*	mg/L	1	9/12/2012 11:53:55 AM
Lead	0.063	0.0050	*	mg/L	1	9/12/2012 11:53:55 AM
Magnesium	75	1.0		mg/L	1	9/12/2012 11:53:55 AM
Manganese	1.7	0.010	*	mg/L	5	9/12/2012 11:57:46 AM
Potassium	4.9	1.0		mg/L	1	9/12/2012 11:53:55 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 3:46:40 PM
Sodium	1200	20		mg/L	20	9/12/2012 3:50:33 PM
Zinc	0.46	0.010		mg/L	1	9/12/2012 11:53:55 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.040	0.0020		mg/L	1	9/5/2012 10:49:11 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 10:49:11 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 10:49:11 AM
Copper	0.22	0.0060		mg/L	1	9/5/2012 10:49:11 AM
Iron	1.7	0.10	*	mg/L	5	9/5/2012 10:52:19 AM
Lead	0.070	0.0050	*	mg/L	1	9/5/2012 10:49:11 AM
Manganese	1.0	0.0020	*	mg/L	1	9/5/2012 10:49:11 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 10:49:11 AM
Zinc	0.47	0.010		mg/L	1	9/5/2012 10:49:11 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-003 **Matrix:** AQUEOUS

Client Sample ID: GWM-3
Collection Date: 8/21/2012 6:15:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0050		mg/L	5	9/6/2012 4:27:18 PM
Selenium	0.0099	0.0050		mg/L	5	9/6/2012 4:27:18 PM
Uranium	0.066	0.0050	*	mg/L	5	9/6/2012 4:27:18 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0033	0.0025		mg/L	2.5	9/6/2012 5:49:26 PM
Selenium	0.0092	0.0025		mg/L	2.5	9/6/2012 5:49:26 PM
Uranium	0.067	0.0025	*	mg/L	2.5	9/13/2012 1:30:14 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:17:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Aniline	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Anthracene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Azobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Benzoic acid	ND	20		µg/L	1	8/29/2012 3:48:37 AM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Carbazole	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Chrysene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 3:48:37 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-3
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:15:00 PM
Lab ID: 1208A02-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 3:48:37 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 3:48:37 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 3:48:37 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Fluoranthene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Fluorene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Isophorone	ND	10		µg/L	1	8/29/2012 3:48:37 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 3:48:37 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 3:48:37 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Naphthalene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 3:48:37 AM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 3:48:37 AM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 3:48:37 AM
Phenanthrene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Phenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Pyrene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Pyridine	ND	10		µg/L	1	8/29/2012 3:48:37 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 3:48:37 AM
Surr: 2,4,6-Tribromophenol	96.0	44.2-126		%REC	1	8/29/2012 3:48:37 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-003 **Matrix:** AQUEOUS

Client Sample ID: GWM-3
Collection Date: 8/21/2012 6:15:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	94.2	37-114		%REC	1	8/29/2012 3:48:37 AM
Surr: 2-Fluorophenol	57.1	23.4-98		%REC	1	8/29/2012 3:48:37 AM
Surr: 4-Terphenyl-d14	75.6	41.3-116		%REC	1	8/29/2012 3:48:37 AM
Surr: Nitrobenzene-d5	98.8	39.5-118		%REC	1	8/29/2012 3:48:37 AM
Surr: Phenol-d5	54.4	20.9-95.9		%REC	1	8/29/2012 3:48:37 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Toluene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Methyl tert-butyl ether (MTBE)	1.5	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:00:27 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 7:00:27 PM
Acetone	ND	10		µg/L	1	8/30/2012 7:00:27 PM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Bromoform	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 7:00:27 PM
2-Butanone	ND	10		µg/L	1	8/30/2012 7:00:27 PM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 7:00:27 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
Chloroform	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 7:00:27 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-3
Project: 3rd QTR 2012 GW
Collection Date: 8/21/2012 6:15:00 PM
Lab ID: 1208A02-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
2-Hexanone	ND	10		µg/L	1	8/30/2012 7:00:27 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 7:00:27 PM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 7:00:27 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 7:00:27 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Styrene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 7:00:27 PM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 7:00:27 PM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 7:00:27 PM
Surr: 1,2-Dichloroethane-d4	83.4	70-130		%REC	1	8/30/2012 7:00:27 PM
Surr: 4-Bromofluorobenzene	86.3	70-130		%REC	1	8/30/2012 7:00:27 PM
Surr: Dibromofluoromethane	90.5	70-130		%REC	1	8/30/2012 7:00:27 PM
Surr: Toluene-d8	84.9	70-130		%REC	1	8/30/2012 7:00:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 7:00:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Toluene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 8:23:49 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 8:23:49 PM
Acetone	ND	10		µg/L	1	8/30/2012 8:23:49 PM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Bromoform	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 8:23:49 PM
2-Butanone	ND	10		µg/L	1	8/30/2012 8:23:49 PM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 8:23:49 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
Chloroform	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 8:23:49 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
2-Hexanone	ND	10		µg/L	1	8/30/2012 8:23:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 7:00:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 8:23:49 PM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 8:23:49 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 8:23:49 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Styrene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 8:23:49 PM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 8:23:49 PM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 8:23:49 PM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	8/30/2012 8:23:49 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	8/30/2012 8:23:49 PM
Surr: Dibromofluoromethane	82.9	70-130		%REC	1	8/30/2012 8:23:49 PM
Surr: Toluene-d8	85.7	70-130		%REC	1	8/30/2012 8:23:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW
Lab ID: 1208A02-005
Matrix: AQUEOUS
Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/24/2012 7:52:16 PM
Surr: BFB	114	69.8-119		%REC	1	8/24/2012 7:52:16 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Toluene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 8:51:38 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 8:51:38 PM
Acetone	ND	10		µg/L	1	8/30/2012 8:51:38 PM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Bromoform	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 8:51:38 PM
2-Butanone	ND	10		µg/L	1	8/30/2012 8:51:38 PM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 8:51:38 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
Chloroform	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 8:51:38 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 GW
Collection Date:
Lab ID: 1208A02-005
Matrix: AQUEOUS
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
2-Hexanone	ND	10		µg/L	1	8/30/2012 8:51:38 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 8:51:38 PM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 8:51:38 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 8:51:38 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Styrene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 8:51:38 PM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 8:51:38 PM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 8:51:38 PM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	8/30/2012 8:51:38 PM
Surr: 4-Bromofluorobenzene	85.1	70-130		%REC	1	8/30/2012 8:51:38 PM
Surr: Dibromofluoromethane	94.4	70-130		%REC	1	8/30/2012 8:51:38 PM
Surr: Toluene-d8	85.8	70-130		%REC	1	8/30/2012 8:51:38 PM

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
) Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
p Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

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

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3476**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
ıium	0.51	0.0020	0.5000	0	102	85	115			
mium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID	**MB-3476**	SampType:	**MBLK**	TestCode:	**EPA 200.8: Metals**					
Client ID:	**PBW**	Batch ID:	**3476**	RunNo:	**5508**					
Prep Date:	**8/24/2012**	Analysis Date:	**9/13/2012**	SeqNo:	**157390**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5392**
Prep Date: **8/24/2012**	Analysis Date: **9/6/2012**	SeqNo: **153678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			
Bromide	2.4	0.10	2.500	0	95.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.1	90	110			
Sulfate	9.4	0.50	10.00	0	93.7	90	110			

Sample ID **1208944-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0.09490	89.1	83.3	107			

Sample ID **1208944-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0.09490	91.4	83.3	107	2.49	20	

Sample ID **1208997-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.6	72.5	111			
Bromide	2.5	0.10	2.500	0	98.8	83.3	107			
Nitrogen, Nitrate (As N)	2.9	0.10	2.500	0.3941	102	90.4	113			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **1208997-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.7	72.5	111	1.20	20	
Bromide	2.5	0.10	2.500	0	100	83.3	107	1.16	20	
Nitrogen, Nitrate (As N)	3.0	0.10	2.500	0.3941	103	90.4	113	0.618	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.9	90	110			
Chloride	4.6	0.50	5.000	0	92.8	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.5	90	110			
Sulfate	9.5	0.50	10.00	0	94.9	90	110			

Sample ID **1208940-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0.1511	77.9	76.6	110			

Sample ID **1208940-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143394** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0.1511	79.8	76.6	110	1.74	20	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **1208996-002BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/22/2012** SeqNo: **143430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3631	89.6	76.6	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.5	74.5	115			

Sample ID **1208996-002BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/22/2012** SeqNo: **143431** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.82	0.10	0.5000	0.3631	90.8	76.6	110	0.787	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.7	74.5	115	0.225	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143470** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143471** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.6	90	110			
Chloride	4.7	0.50	5.000	0	94.5	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			
Sulfate	9.7	0.50	10.00	0	96.9	90	110			

Sample ID **1208A06-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110			S
Chloride	5.8	0.50	5.000	0	116	87.8	111			S
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0.1859	95.7	74.5	115			
Sulfate	22	0.50	10.00	0	219	84.6	122			S

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **1208A06-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110	0.217	20	S
Chloride	5.8	0.50	5.000	0	115	87.8	111	0.325	20	S
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0.1859	94.7	74.5	115	0.967	20	
Sulfate	22	0.50	10.00	0	218	84.6	122	0.0990	20	S

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5295** RunNo: **5295**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150727** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5295** RunNo: **5295**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150728** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.7	90	110			

Sample ID **1209001-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5295** RunNo: **5295**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150730** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.76	0.10	0.5000	0.3080	89.8	76.6	110			

Sample ID **1209001-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5295** RunNo: **5295**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150731** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.75	0.10	0.5000	0.3080	88.5	76.6	110	0.878	20	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
el Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.2	69.8	119			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID **1208990-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
Surr: BFB	210		200.0		106	69.8	119			

Sample ID **1208990-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	0	0	

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145099** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145100** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID **1208A05-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145103** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID **1208A05-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
nt ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145104** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148266** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethyibenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.6	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		84.3	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.5	70	130			
Surr: Toluene-d8	8.5		10.00		84.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148267** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	8.2		10.00		82.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
'anone	ND	10								
..on disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
'thalene	ND	2.0								
ethylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.6	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		84.3	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.5	70	130			
Surr: Toluene-d8	8.5		10.00		84.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148676** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Chlorobenzene	19	1.0	20.00	0	94.8	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	93.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	8.2		10.00		82.5	70	130			

Sample ID **1208a02-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GWM-3**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148677** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.0	66.8	128			
ene	21	1.0	20.00	0	104	70	130			
orobenzene	19	1.0	20.00	0	96.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.4	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.1	70	130			
Surr: Dibromofluoromethane	8.1		10.00		81.3	70	130			
Surr: Toluene-d8	8.4		10.00		84.3	70	130			

Sample ID **1208a02-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **GWM-3**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148678** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128	0.921	16.7	
Toluene	19	1.0	20.00	0	93.9	70	130	10.4	18.7	
Chlorobenzene	18	1.0	20.00	0	91.4	70	130	5.54	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.3	70	130	5.61	16.7	
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130	2.46	17.5	
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		86.4	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		91.5	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		84.1	70	130	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 GW

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyciopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
troaniline	ND	10								
Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	110		200.0		55.0	44.2	126			
Surr: 2-Fluorobiphenyl	43		100.0		43.1	37	114			
Surr: 2-Fluorophenol	78		200.0		38.9	23.4	98			
Surr: 4-Terphenyl-d14	47		100.0		46.6	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		44.9	39.5	118			
Surr: Phenol-d5	62		200.0		31.0	20.9	95.9			

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A02**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 GW

Sample ID **lcs-3477**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146456** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.4	38.2	99.4			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	35.5	108			
2-Chlorophenol	120	10	200.0	0	58.5	29.8	106			
1,4-Dichlorobenzene	49	10	100.0	0	49.3	32.6	91.5			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	44.7	112			
N-Nitrosodi-n-propylamine	72	10	100.0	0	71.5	38.5	105			
4-Nitrophenol	94	10	200.0	0	47.2	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	63.4	20.2	93			
Phenol	94	10	200.0	0	47.1	23	66.1			
Pyrene	60	10	100.0	0	59.8	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	52.3	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114			
Surr: 2-Fluorophenol	110		200.0		52.9	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.2	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-3477**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146458** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	38.2	99.4	7.42	20	
4-Chloro-3-methylphenol	150	10	200.0	0	76.2	35.5	108	3.38	20	
2-Chlorophenol	120	10	200.0	0	61.2	29.8	106	4.43	20	
1,4-Dichlorobenzene	50	10	100.0	0	50.1	32.6	91.5	1.61	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.0	44.7	112	17.4	20	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.5	38.5	105	2.89	20	
4-Nitrophenol	110	10	200.0	0	55.7	11.6	73.1	16.4	20	
Pentachlorophenol	150	20	200.0	0	73.7	20.2	93	15.1	20	
Phenol	93	10	200.0	0	46.5	23	66.1	1.37	20	
Pyrene	65	10	100.0	0	65.1	40.1	101	8.43	20	
1,2,4-Trichlorobenzene	59	10	100.0	0	58.7	37.7	99.1	11.4	20	
Surr: 2,4,6-Tribromophenol	180		200.0		92.0	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.3	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		52.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	75		100.0		75.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	68		100.0		68.5	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.2	20.9	95.9	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208A02

Received by/date: _____

Logged By: Anne Thorne — 8/22/2012 1:22:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/22/2012 — Anne Thorne

Reviewed By: IO 08/23/12

Chain of Custody

1. Were seals intact? — Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — ~~Yes ☑ No ☑~~
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐

-ODIE, CORE - ADDED 1mL HNO_3 FOR ACCEPTABLE pH. 08/23/12

11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 9 (<2 or >12 unless noted)
Adjusted? YES
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

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

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

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

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn Around Time:
☒ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:
On Ice: ☒ Yes ☐ No
Sample Temperature: .0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208A02	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)																Air Bubbles (Y or N)
8/21/12	1845	GW	GWM-1	11		-001	X	X	X	X	X													
8/21/12	1835	GW	GWM-2	11		-002	X	X	X	X	X													
8/21/12	1815	GW	GWM-3	11		-003	X	X	X	X	X													
8/21/12	1900	W	Field Blank	3		-004	X																	
8/21/12	—	W	~~Trip Blank~~ Trip Blank AT 08/22/12	3	~~No HgCl~~ Blank AT	-005	X																	
						08/22/12																		

Date	Time	Relinquished by:	Received by:	Date	Time
8/22/12	0830				
22/12	13:22			08/22/12	1322

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 24, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208989

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208989**
Date Reported: **9/24/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 4:40:00 PM
Lab ID: 1208989-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	3.5	1.0		mg/L	1	8/23/2012 4:11:49 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 4:11:49 PM
Surr: DNOP	136	79.5-166		%REC	1	8/23/2012 4:11:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	8/27/2012 6:09:16 PM
Surr: BFB	106	69.8-119		%REC	10	8/27/2012 6:09:16 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.018	0.0020		mg/L	1	9/12/2012 10:13:50 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 10:13:50 AM
Chromium	0.0066	0.0060		mg/L	1	9/12/2012 10:13:50 AM
Copper	ND	0.0060		mg/L	1	9/12/2012 10:13:50 AM
Iron	0.25	0.020		mg/L	1	9/12/2012 10:13:50 AM
Lead	ND	0.0050		mg/L	1	9/12/2012 10:13:50 AM
Manganese	0.034	0.0020		mg/L	1	9/12/2012 10:13:50 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 10:13:50 AM
Zinc	0.089	0.010		mg/L	1	9/12/2012 10:13:50 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.023	0.0020		mg/L	1	9/5/2012 9:56:37 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 9:56:37 AM
Chromium	0.020	0.0060		mg/L	1	9/5/2012 9:56:37 AM
Copper	0.075	0.0060		mg/L	1	9/5/2012 9:56:37 AM
Iron	0.67	0.020	*	mg/L	1	9/5/2012 9:56:37 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 9:56:37 AM
Manganese	0.041	0.0020		mg/L	1	9/5/2012 9:56:37 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 9:56:37 AM
Zinc	0.23	0.010		mg/L	1	9/5/2012 9:56:37 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0012	0.0010		mg/L	1	9/6/2012 1:37:56 PM
Selenium	0.0014	0.0010		mg/L	1	9/6/2012 1:37:56 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 1:37:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0035	0.0025		mg/L	2.5	9/6/2012 5:36:18 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 5:36:18 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:20:54 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:01:21 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	300	2.0		mg/L	1	8/28/2012 5:49:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-001 **Matrix:** AQUEOUS

Client Sample ID: Pilot Eff
Collection Date: 8/21/2012 4:40:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Toluene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Ethylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Naphthalene	ND	20		µg/L	10	8/24/2012 6:41:19 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/24/2012 6:41:19 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/24/2012 6:41:19 PM
Acetone	ND	100		µg/L	10	8/24/2012 6:41:19 PM
Bromobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Bromodichloromethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Bromoform	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Bromomethane	ND	30		µg/L	10	8/24/2012 6:41:19 PM
2-Butanone	ND	100		µg/L	10	8/24/2012 6:41:19 PM
Carbon disulfide	ND	100		µg/L	10	8/24/2012 6:41:19 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Chlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Chloroethane	ND	20		µg/L	10	8/24/2012 6:41:19 PM
Chloroform	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Chloromethane	ND	30		µg/L	10	8/24/2012 6:41:19 PM
2-Chlorotoluene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
4-Chlorotoluene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
cis-1,2-DCE	ND	10		µg/L	10	8/24/2012 6:41:19 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/24/2012 6:41:19 PM
Dibromochloromethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Dibromomethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1-Dichloroethene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/24/2012 6:41:19 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
2-Hexanone	ND	100		µg/L	10	8/24/2012 6:41:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot Eff
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 4:40:00 PM
Lab ID: 1208989-001
Matrix: AQUEOUS
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/24/2012 6:41:19 PM
Methylene Chloride	ND	30		µg/L	10	8/24/2012 6:41:19 PM
n-Butylbenzene	ND	30		µg/L	10	8/24/2012 6:41:19 PM
n-Propylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
sec-Butylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Styrene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
tert-Butylbenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/24/2012 6:41:19 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/24/2012 6:41:19 PM
trans-1,2-DCE	ND	10		µg/L	10	8/24/2012 6:41:19 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/24/2012 6:41:19 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/24/2012 6:41:19 PM
Vinyl chloride	ND	10		µg/L	10	8/24/2012 6:41:19 PM
Xylenes, Total	ND	15		µg/L	10	8/24/2012 6:41:19 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	10	8/24/2012 6:41:19 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	10	8/24/2012 6:41:19 PM
Surr: Dibromofluoromethane	88.4	70-130		%REC	10	8/24/2012 6:41:19 PM
Surr: Toluene-d8	103	70-130		%REC	10	8/24/2012 6:41:19 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-002 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 8/21/2012 5:10:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2.8	1.0		mg/L	1	8/23/2012 4:33:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 4:33:47 PM
Surr: DNOP	143	79.5-166		%REC	1	8/23/2012 4:33:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	8/27/2012 8:10:02 PM
Surr: BFB	107	69.8-119		%REC	10	8/27/2012 8:10:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	8.0	0.50	*	mg/L	5	8/22/2012 10:13:56 PM
Chloride	490	25		mg/L	50	8/23/2012 4:53:22 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/22/2012 10:13:56 PM
Bromide	ND	0.50		mg/L	5	8/22/2012 10:13:56 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/22/2012 10:13:56 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/22/2012 10:13:56 PM
Sulfate	960	25		mg/L	50	8/23/2012 4:53:22 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.029	0.0020		mg/L	1	9/12/2012 10:23:19 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 10:23:19 AM
Calcium	250	5.0		mg/L	5	9/12/2012 10:27:12 AM
Chromium	ND	0.0060		mg/L	1	9/12/2012 10:23:19 AM
Copper	ND	0.0060		mg/L	1	9/12/2012 10:23:19 AM
Iron	0.13	0.020		mg/L	1	9/12/2012 10:23:19 AM
Lead	ND	0.0050		mg/L	1	9/12/2012 10:23:19 AM
Magnesium	61	1.0		mg/L	1	9/12/2012 10:23:19 AM
Manganese	0.044	0.0020		mg/L	1	9/12/2012 10:23:19 AM
Potassium	30	1.0		mg/L	1	9/12/2012 10:23:19 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 10:23:19 AM
Sodium	430	5.0		mg/L	5	9/12/2012 10:27:12 AM
Zinc	0.067	0.010		mg/L	1	9/12/2012 10:23:19 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.036	0.0020		mg/L	1	9/5/2012 10:06:05 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 10:06:05 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 10:06:05 AM
Copper	0.0086	0.0060		mg/L	1	9/5/2012 10:06:05 AM
Iron	0.40	0.020	*	mg/L	1	9/5/2012 10:06:05 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 10:06:05 AM
Manganese	0.061	0.0020	*	mg/L	1	9/5/2012 10:06:05 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 10:06:05 AM
Zinc	0.066	0.010		mg/L	1	9/5/2012 10:06:05 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:10:00 PM
Lab ID: 1208989-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0041	0.0010		mg/L	1	9/6/2012 1:41:52 PM
Selenium	0.0024	0.0010		mg/L	1	9/6/2012 1:41:52 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 1:41:52 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0050	0.0025		mg/L	2.5	9/6/2012 5:38:10 PM
Selenium	0.0037	0.0025		mg/L	2.5	9/6/2012 5:38:10 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:22:46 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:03:10 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Acenaphthylene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Aniline	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Anthracene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Azobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benz(a)anthracene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benzo(a)pyrene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Benzoic acid	ND	100		µg/L	1	8/29/2012 1:21:14 AM
Benzyl alcohol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Butyl benzyl phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Carbazole	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Chloroaniline	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Chloronaphthalene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Chlorophenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Chrysene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Di-n-butyl phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Di-n-octyl phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Dibenzofuran	ND	50		µg/L	1	8/29/2012 1:21:14 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-002 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 8/21/2012 5:10:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Diethyl phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Dimethyl phthalate	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2,4-Dichlorophenol	ND	100		µg/L	1	8/29/2012 1:21:14 AM
2,4-Dimethylphenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/29/2012 1:21:14 AM
2,4-Dinitrophenol	ND	100		µg/L	1	8/29/2012 1:21:14 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Fluoranthene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Fluorene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Hexachlorobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Hexachlorobutadiene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Hexachloroethane	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Isophorone	ND	50		µg/L	1	8/29/2012 1:21:14 AM
1-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Methylphenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
3+4-Methylphenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	8/29/2012 1:21:14 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	8/29/2012 1:21:14 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Naphthalene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Nitroaniline	ND	50		µg/L	1	8/29/2012 1:21:14 AM
3-Nitroaniline	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Nitroaniline	ND	100		µg/L	1	8/29/2012 1:21:14 AM
Nitrobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2-Nitrophenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
4-Nitrophenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Pentachlorophenol	ND	100		µg/L	1	8/29/2012 1:21:14 AM
Phenanthrene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Phenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Pyrene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Pyridine	ND	50		µg/L	1	8/29/2012 1:21:14 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/29/2012 1:21:14 AM
Surr: 2,4,6-Tribromophenol	91.8	44.2-126		%REC	1	8/29/2012 1:21:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:10:00 PM
Lab ID: 1208989-002
Matrix: AQUEOUS
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	80.9	37-114		%REC	1	8/29/2012 1:21:14 AM
Surr: 2-Fluorophenol	62.2	23.4-98		%REC	1	8/29/2012 1:21:14 AM
Surr: 4-Terphenyl-d14	73.2	41.3-116		%REC	1	8/29/2012 1:21:14 AM
Surr: Nitrobenzene-d5	89.3	39.5-118		%REC	1	8/29/2012 1:21:14 AM
Surr: Phenol-d5	49.9	20.9-95.9		%REC	1	8/29/2012 1:21:14 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Toluene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Ethylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Naphthalene	ND	20		µg/L	10	8/24/2012 7:37:48 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/24/2012 7:37:48 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/24/2012 7:37:48 PM
Acetone	ND	100		µg/L	10	8/24/2012 7:37:48 PM
Bromobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Bromodichloromethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Bromoform	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Bromomethane	ND	30		µg/L	10	8/24/2012 7:37:48 PM
2-Butanone	ND	100		µg/L	10	8/24/2012 7:37:48 PM
Carbon disulfide	110	100		µg/L	10	8/24/2012 7:37:48 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Chlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Chloroethane	ND	20		µg/L	10	8/24/2012 7:37:48 PM
Chloroform	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Chloromethane	ND	30		µg/L	10	8/24/2012 7:37:48 PM
2-Chlorotoluene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
4-Chlorotoluene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
cis-1,2-DCE	ND	10		µg/L	10	8/24/2012 7:37:48 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/24/2012 7:37:48 PM
Dibromochloromethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Dibromomethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-002 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 8/21/2012 5:10:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/24/2012 7:37:48 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
2-Hexanone	ND	100		µg/L	10	8/24/2012 7:37:48 PM
Isopropylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/24/2012 7:37:48 PM
Methylene Chloride	ND	30		µg/L	10	8/24/2012 7:37:48 PM
n-Butylbenzene	ND	30		µg/L	10	8/24/2012 7:37:48 PM
n-Propylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
sec-Butylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Styrene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
tert-Butylbenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/24/2012 7:37:48 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/24/2012 7:37:48 PM
trans-1,2-DCE	ND	10		µg/L	10	8/24/2012 7:37:48 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/24/2012 7:37:48 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/24/2012 7:37:48 PM
Vinyl chloride	ND	10		µg/L	10	8/24/2012 7:37:48 PM
Xylenes, Total	ND	15		µg/L	10	8/24/2012 7:37:48 PM
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	10	8/24/2012 7:37:48 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	8/24/2012 7:37:48 PM
Surr: Dibromofluoromethane	93.6	70-130		%REC	10	8/24/2012 7:37:48 PM
Surr: Toluene-d8	101	70-130		%REC	10	8/24/2012 7:37:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-003 **Matrix:** AQUEOUS

Client Sample ID: Equipment Blank
Collection Date: 8/21/2012 6:00:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 8:34:19 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 8:34:19 PM
Acetone	ND	10		µg/L	1	8/24/2012 8:34:19 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 8:34:19 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 8:34:19 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 8:34:19 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 8:34:19 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 8:34:19 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-003 **Matrix:** AQUEOUS

Client Sample ID: Equipment Blank
Collection Date: 8/21/2012 6:00:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 8:34:19 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 8:34:19 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 8:34:19 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 8:34:19 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 8:34:19 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 8:34:19 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	8/24/2012 8:34:19 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/24/2012 8:34:19 PM
Surr: Dibromofluoromethane	87.0	70-130		%REC	1	8/24/2012 8:34:19 PM
Surr: Toluene-d8	101	70-130		%REC	1	8/24/2012 8:34:19 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:50:00 PM
Lab ID: 1208989-004 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 9:02:39 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 9:02:39 PM
Acetone	ND	10		µg/L	1	8/24/2012 9:02:39 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 9:02:39 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 9:02:39 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 9:02:39 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 9:02:39 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 9:02:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 5:50:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 9:02:39 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 9:02:39 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 9:02:39 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 9:02:39 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 9:02:39 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 9:02:39 PM
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%REC	1	8/24/2012 9:02:39 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	1	8/24/2012 9:02:39 PM
Surr: Dibromofluoromethane	92.0	70-130		%REC	1	8/24/2012 9:02:39 PM
Surr: Toluene-d8	102	70-130		%REC	1	8/24/2012 9:02:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208989-005 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/24/2012 1:51:12 PM
Surr: BFB	99.1	69.8-119		%REC	1	8/24/2012 1:51:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 9:30:50 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 9:30:50 PM
Acetone	ND	10		µg/L	1	8/24/2012 9:30:50 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 9:30:50 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 9:30:50 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 9:30:50 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 9:30:50 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208989-005 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 9:30:50 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 9:30:50 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 9:30:50 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 9:30:50 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 9:30:50 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 9:30:50 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 9:30:50 PM
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	1	8/24/2012 9:30:50 PM
Surr: 4-Bromofluorobenzene	96.5	70-130		%REC	1	8/24/2012 9:30:50 PM
Surr: Dibromofluoromethane	97.3	70-130		%REC	1	8/24/2012 9:30:50 PM
Surr: Toluene-d8	98.1	70-130		%REC	1	8/24/2012 9:30:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
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12065 Lebanon Rd.
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(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 29, 2012

ESC Sample # : L591700-01

Date Received : August 24, 2012
Description :

Site ID :

Sample ID : 1208989-001D PILOT EFF

Project # :

Collected By :
Collection Date : 08/21/12 16:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	650	100	mg/l	410.4	08/28/12	10

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/29/12 09:15 Printed: 08/29/12 09:15

ESC
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L591700

August 29, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG609724	08/28/12 16:03

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	14.0	15.0	5.48*	5	L591808-01	WG609724
COD	mg/l	0	0	0	5	L591399-02	WG609724

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	238.	103.	90-110	WG609724

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	240.	238.	104.	90-110	0.837	5	WG609724

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	486.	84.0	400	100.	90-110	L591674-01	WG609724

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	488.	486.	101.	90-110	0.411	5	L591674-01	WG609724

Batch number /Run number / Sample number cross reference

WG609724: R2320393: L591700-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
nium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
per	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
...gnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

...ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3476**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5392**
Prep Date: **8/24/2012**	Analysis Date: **9/6/2012**	SeqNo: **153678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			
Bromide	2.4	0.10	2.500	0	94.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.5	90	110			

Sample ID **1208940-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0.1511	77.9	76.6	110			
Nitrogen, Nitrite (As N)	0.81	0.10	1.000	0	81.0	72.5	111			
Bromide	2.6	0.10	2.500	0.3290	91.2	83.3	107			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.1243	96.7	90.4	113			

Sample ID **1208940-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143394** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0.1511	79.8	76.6	110	1.74	20	
Nitrogen, Nitrite (As N)	0.81	0.10	1.000	0	80.9	72.5	111	0.116	20	
Bromide	2.6	0.10	2.500	0.3290	91.1	83.3	107	0.0223	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.1243	96.9	90.4	113	0.226	20	

Sample ID **1208996-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-002BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**
Prep Date: Analysis Date: **8/22/2012** SeqNo: **143430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3631	89.6	76.6	110			
Nitrogen, Nitrite (As N)	0.83	0.10	1.000	0	83.2	72.5	111			
Bromide	3.0	0.10	2.500	0.6420	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.5	74.5	115			

Sample ID **1208996-002BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**
Prep Date: Analysis Date: **8/22/2012** SeqNo: **143431** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.82	0.10	0.5000	0.3631	90.8	76.6	110	0.787	20	
Nitrogen, Nitrite (As N)	0.83	0.10	1.000	0	83.5	72.5	111	0.306	20	
Bromide	3.0	0.10	2.500	0.6420	94.2	83.3	107	0.0749	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.7	74.5	115	0.225	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R5064** RunNo: **5064**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143470** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R5064** RunNo: **5064**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143471** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.6	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.5	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			

Sample ID **1208A06-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A06-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110			S
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	92.8	72.5	111			
Bromide	2.4	0.10	2.500	0	95.2	83.3	107			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90.4	113			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0.1859	95.7	74.5	115			

Sample ID **1208A06-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110	0.217	20	S
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	91.9	72.5	111	1.01	20	
Bromide	2.4	0.10	2.500	0	94.2	83.3	107	1.06	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90.4	113	0.898	20	
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0.1859	94.7	74.5	115	0.967	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143850** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143852** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Sulfate	9.3	0.50	10.00	0	93.3	90	110			

Sample ID **1208A37-001DMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	14.01	107	87.8	111			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A37-001DMSD**	SampType: **MSD**		TestCode: **EPA Method 300.0: Anions**		
Client ID: **BatchQC**	Batch ID: **R5077**		RunNo: **5077**		
Prep Date:	Analysis Date: **8/23/2012**		SeqNo: **143868**	Units: **mg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	14.01	109	87.8	111	0.338	20	
Sulfate	73	0.50	10.00	63.63	97.3	84.6	122	0.485	20	E

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A74-001ADUP**	SampType: **DUP**		TestCode: **EPA Method 8015B: Gasoline Range**		
Client ID: **BatchQC**	Batch ID: **R5142**		RunNo: **5142**		
Prep Date:	Analysis Date: **8/27/2012**		SeqNo: **146146**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2200	50						6.88	21	
Surr: BFB	68000		20000		342	43.1	185	0	0	S

ifiers:

	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.2	69.8	119			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID **1208990-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
Surr: BFB	210		200.0		106	69.8	119			

Sample ID **1208990-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		111	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146143** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.9	75.9	119			
Surr: BFB	20		20.00		98.3	69.8	119			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208989-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Pilot Eff** Batch ID: **R5142** RunNo: **5142**
Prep Date: Analysis Date: **8/27/2012** SeqNo: **146156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0.2540	89.4	63.5	131			
Surr: BFB	190		200.0		97.3	69.8	119			

Sample ID **1208989-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Pilot Eff** Batch ID: **R5142** RunNo: **5142**
Prep Date: Analysis Date: **8/27/2012** SeqNo: **146157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0.2540	89.8	63.5	131	0.422	16.7	
Surr: BFB	220		200.0		111	69.8	119	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A74-001ADUP** SampType: **DUP** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R5142** RunNo: **5142**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146168** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	26		20.00		130	74.5	131	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145099** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145100** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID **1208A05-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145103** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID **1208A05-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
ent ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145104** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146165** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	24		20.00		118	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146166** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25		20.00		124	55	140			

Sample ID **1208B76-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146172** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	97		100.0		97.5	55	140			

lifiers:

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- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	**1208B76-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **R5142**		RunNo: **5142**					
Prep Date:		Analysis Date: **8/28/2012**		SeqNo: **146173**		Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	120		100.0		124	55	140	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**	
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
anone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**	
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208989**

Hall Environmental Analysis Laboratory, Inc.

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**	
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
oaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	110		200.0		55.0	44.2	126			
Surr: 2-Fluorobiphenyl	43		100.0		43.1	37	114			
Surr: 2-Fluorophenol	78		200.0		38.9	23.4	98			
Surr: 4-Terphenyl-d14	47		100.0		46.6	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		44.9	39.5	118			
Surr: Phenol-d5	62		200.0		31.0	20.9	95.9			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3477**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146456** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.4	38.2	99.4			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	35.5	108			
2-Chlorophenol	120	10	200.0	0	58.5	29.8	106			
1,4-Dichlorobenzene	49	10	100.0	0	49.3	32.6	91.5			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	44.7	112			
N-Nitrosodi-n-propylamine	72	10	100.0	0	71.5	38.5	105			
4-Nitrophenol	94	10	200.0	0	47.2	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	63.4	20.2	93			
Phenol	94	10	200.0	0	47.1	23	66.1			
Pyrene	60	10	100.0	0	59.8	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	52.3	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114			
Surr: 2-Fluorophenol	110		200.0		52.9	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.2	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-3477**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146458** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	38.2	99.4	7.42	20	
4-Chloro-3-methylphenol	150	10	200.0	0	76.2	35.5	108	3.38	20	
2-Chlorophenol	120	10	200.0	0	61.2	29.8	106	4.43	20	
1,4-Dichlorobenzene	50	10	100.0	0	50.1	32.6	91.5	1.61	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.0	44.7	112	17.4	20	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.5	38.5	105	2.89	20	
4-Nitrophenol	110	10	200.0	0	55.7	11.6	73.1	16.4	20	
Pentachlorophenol	150	20	200.0	0	73.7	20.2	93	15.1	20	
Phenol	93	10	200.0	0	46.5	23	66.1	1.37	20	
Pyrene	65	10	100.0	0	65.1	40.1	101	8.43	20	
1,2,4-Trichlorobenzene	59	10	100.0	0	58.7	37.7	99.1	11.4	20	
Surr: 2,4,6-Tribromophenol	180		200.0		92.0	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.3	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		52.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	75		100.0		75.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	68		100.0		68.5	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.2	20.9	95.9	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208989**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3456**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145574**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-3456**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145575**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-3456**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145576**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	92.9	84.6	115.4			

Sample ID **LCSD-3456**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
ent ID: **LCSS02**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145577**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	93.4	84.6	115.4	0.542	20	

Sample ID **1208937-002ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145582**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	62	2.0						0.0962	20	

ifiers:

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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208989

Received by/date: AT 08/22/12

Logged By: Anne Thorne — 8/22/2012 1:20:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/22/2012 — Anne Thorne

Reviewed By:

Chain of Custody

1. Were seals intact?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type)_____

Turn-Around Time:
☒ Standard ☐ Rush_____

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 208989	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	BTEX + MTBE (EPA 8021)									Air Bubbles (Y or N)
8/21/12	1640	GW	Pilot Eff	10		-001	X	X	X	X								
			~~NAPIS Eff~~				~~X~~	~~X~~	~~X~~		~~X~~	~~X~~						
8/21/12	1710	GW	AL-2 to EP-1	11		-002	X	X	X		X		X					
8/21/12	1800	W	Equipment Blank	3		-003	X											
8/21/12	1750	W	Field Blank	3		-004	X											
8/21/12	—	W	Trip Blank	3		-005	X											

Date	Time	Relinquished by:	Received by:	Date	Time
8/22/12	0830				
8/22/12	13:20			08/22/12	1320

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 24, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208990

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208990**
Date Reported: **9/24/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 8/21/2012 5:00:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/24/2012 9:23:28 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/24/2012 9:23:28 AM
Surr: DNOP	124	79.5-166		%REC	1	8/24/2012 9:23:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	8/24/2012 2:21:30 PM
Surr: BFB	91.0	69.8-119		%REC	10	8/24/2012 2:21:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Chloride	470	25		mg/L	50	8/23/2012 5:05:47 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	16	2.0		mg/L	1	8/28/2012 5:49:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Acenaphthylene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Aniline	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Anthracene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Azobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benz(a)anthracene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benzo(a)pyrene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Benzoic acid	ND	100		µg/L	1	8/29/2012 1:51:00 AM
Benzyl alcohol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Bis(2-ethylhexyl)phthalate	72	50		µg/L	1	8/29/2012 1:51:00 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Butyl benzyl phthalate	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Carbazole	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4-Chloroaniline	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Chloronaphthalene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Chlorophenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Chrysene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Di-n-butyl phthalate	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Di-n-octyl phthalate	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Dibenzofuran	ND	50		µg/L	1	8/29/2012 1:51:00 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 8/21/2012 5:00:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,2-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Diethyl phthalate	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Dimethyl phthalate	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2,4-Dichlorophenol	ND	100		µg/L	1	8/29/2012 1:51:00 AM
2,4-Dimethylphenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/29/2012 1:51:00 AM
2,4-Dinitrophenol	ND	100		µg/L	1	8/29/2012 1:51:00 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Fluoranthene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Fluorene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Hexachlorobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Hexachlorobutadiene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Hexachloroethane	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Isophorone	ND	50		µg/L	1	8/29/2012 1:51:00 AM
1-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Methylphenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
3+4-Methylphenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	8/29/2012 1:51:00 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	8/29/2012 1:51:00 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Naphthalene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Nitroaniline	ND	50		µg/L	1	8/29/2012 1:51:00 AM
3-Nitroaniline	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4-Nitroaniline	ND	100		µg/L	1	8/29/2012 1:51:00 AM
Nitrobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2-Nitrophenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
4-Nitrophenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Pentachlorophenol	ND	100		µg/L	1	8/29/2012 1:51:00 AM
Phenanthrene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Phenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Pyrene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
Pyridine	ND	50		µg/L	1	8/29/2012 1:51:00 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/29/2012 1:51:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 8/21/2012 5:00:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2,4,6-Tribromophenol	111	44.2-126		%REC	1	8/29/2012 1:51:00 AM
Surr: 2-Fluorobiphenyl	95.7	37-114		%REC	1	8/29/2012 1:51:00 AM
Surr: 2-Fluorophenol	68.9	23.4-98		%REC	1	8/29/2012 1:51:00 AM
Surr: 4-Terphenyl-d14	73.3	41.3-116		%REC	1	8/29/2012 1:51:00 AM
Surr: Nitrobenzene-d5	103	39.5-118		%REC	1	8/29/2012 1:51:00 AM
Surr: Phenol-d5	56.7	20.9-95.9		%REC	1	8/29/2012 1:51:00 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Toluene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Ethylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Naphthalene	ND	20		µg/L	10	8/25/2012 2:41:30 AM
1-Methylnaphthalene	ND	40		µg/L	10	8/25/2012 2:41:30 AM
2-Methylnaphthalene	ND	40		µg/L	10	8/25/2012 2:41:30 AM
Acetone	ND	100		µg/L	10	8/25/2012 2:41:30 AM
Bromobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Bromodichloromethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Bromoform	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Bromomethane	ND	30		µg/L	10	8/25/2012 2:41:30 AM
2-Butanone	ND	100		µg/L	10	8/25/2012 2:41:30 AM
Carbon disulfide	ND	100		µg/L	10	8/25/2012 2:41:30 AM
Carbon Tetrachloride	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Chlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Chloroethane	ND	20		µg/L	10	8/25/2012 2:41:30 AM
Chloroform	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Chloromethane	ND	30		µg/L	10	8/25/2012 2:41:30 AM
2-Chlorotoluene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
4-Chlorotoluene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
cis-1,2-DCE	ND	10		µg/L	10	8/25/2012 2:41:30 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/25/2012 2:41:30 AM
Dibromochloromethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Dibromomethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Dichlorodifluoromethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to AL-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:00:00 PM
Lab ID: 1208990-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,1-Dichloroethene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2-Dichloropropane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,3-Dichloropropane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
2,2-Dichloropropane	ND	20		µg/L	10	8/25/2012 2:41:30 AM
1,1-Dichloropropene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Hexachlorobutadiene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
2-Hexanone	ND	100		µg/L	10	8/25/2012 2:41:30 AM
Isopropylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
4-Isopropyltoluene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/25/2012 2:41:30 AM
Methylene Chloride	ND	30		µg/L	10	8/25/2012 2:41:30 AM
n-Butylbenzene	ND	30		µg/L	10	8/25/2012 2:41:30 AM
n-Propylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
sec-Butylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Styrene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
tert-Butylbenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/25/2012 2:41:30 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/25/2012 2:41:30 AM
trans-1,2-DCE	ND	10		µg/L	10	8/25/2012 2:41:30 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Trichloroethene (TCE)	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Trichlorofluoromethane	ND	10		µg/L	10	8/25/2012 2:41:30 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/25/2012 2:41:30 AM
Vinyl chloride	ND	10		µg/L	10	8/25/2012 2:41:30 AM
Xylenes, Total	ND	15		µg/L	10	8/25/2012 2:41:30 AM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	10	8/25/2012 2:41:30 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	10	8/25/2012 2:41:30 AM
Surr: Dibromofluoromethane	94.6	70-130		%REC	10	8/25/2012 2:41:30 AM
Surr: Toluene-d8	99.6	70-130		%REC	10	8/25/2012 2:41:30 AM
SM4500-H+B: PH						Analyst: **IDC**
pH	8.68	1.68	*H	pH units	1	8/24/2012 12:22:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-002 **Matrix:** AQUEOUS

Client Sample ID: Infl to EP-1
Collection Date: 8/21/2012 5:20:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	9.6	1.0		mg/L	1	8/23/2012 4:55:38 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 4:55:38 PM
Surr: DNOP	142	79.5-166		%REC	1	8/23/2012 4:55:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	8/24/2012 4:21:06 PM
Surr: BFB	114	69.8-119		%REC	10	8/24/2012 4:21:06 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	8.4	0.50	*	mg/L	5	8/22/2012 8:09:48 PM
Chloride	510	25		mg/L	50	8/23/2012 5:43:00 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/22/2012 8:09:48 PM
Bromide	0.51	0.50		mg/L	5	8/22/2012 8:09:48 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/22/2012 8:09:48 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/22/2012 8:09:48 PM
Sulfate	1000	25		mg/L	50	8/23/2012 5:43:00 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.030	0.0020		mg/L	1	9/12/2012 10:31:05 AM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 10:31:05 AM
Calcium	250	5.0		mg/L	5	9/12/2012 10:47:44 AM
Chromium	ND	0.0060		mg/L	1	9/12/2012 10:31:05 AM
Copper	ND	0.0060		mg/L	1	9/12/2012 10:31:05 AM
Iron	0.18	0.020		mg/L	1	9/12/2012 10:31:05 AM
Lead	ND	0.0050		mg/L	1	9/12/2012 10:31:05 AM
Magnesium	61	1.0		mg/L	1	9/12/2012 10:31:05 AM
Manganese	0.047	0.0020		mg/L	1	9/12/2012 10:31:05 AM
Potassium	31	1.0		mg/L	1	9/12/2012 10:31:05 AM
Silver	ND	0.0050		mg/L	1	9/12/2012 10:31:05 AM
Sodium	430	5.0		mg/L	5	9/12/2012 10:47:44 AM
Zinc	0.054	0.010		mg/L	1	9/12/2012 10:31:05 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.038	0.0020		mg/L	1	9/5/2012 10:25:33 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 10:25:33 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 10:25:33 AM
Copper	0.0090	0.0060		mg/L	1	9/5/2012 10:25:33 AM
Iron	0.47	0.020	*	mg/L	1	9/5/2012 10:25:33 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 10:25:33 AM
Manganese	0.065	0.0020	*	mg/L	1	9/5/2012 10:25:33 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 10:25:33 AM
Zinc	0.064	0.010		mg/L	1	9/5/2012 10:25:33 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:20:00 PM
Lab ID: 1208990-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0042	0.0010		mg/L	1	9/6/2012 1:45:48 PM
Selenium	0.0023	0.0010		mg/L	1	9/6/2012 1:45:48 PM
Uranium	0.0011	0.0010		mg/L	1	9/6/2012 1:45:48 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0050	0.0025		mg/L	2.5	9/6/2012 5:40:02 PM
Selenium	0.0034	0.0025		mg/L	2.5	9/6/2012 5:40:02 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:24:38 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:08:27 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	23	2.0		mg/L	1	8/28/2012 5:49:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Acenaphthylene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Aniline	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Anthracene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Azobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benz(a)anthracene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benzo(a)pyrene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Benzoic acid	ND	100		µg/L	1	8/29/2012 2:20:26 AM
Benzyl alcohol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Butyl benzyl phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Carbazole	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Chloroaniline	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Chloronaphthalene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Chlorophenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Chrysene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Di-n-butyl phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Di-n-octyl phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	8/29/2012 2:20:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:20:00 PM
Lab ID: 1208990-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Dibenzofuran	ND	50		µg/L	1	8/29/2012 2:20:26 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Diethyl phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Dimethyl phthalate	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2,4-Dichlorophenol	ND	100		µg/L	1	8/29/2012 2:20:26 AM
2,4-Dimethylphenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	8/29/2012 2:20:26 AM
2,4-Dinitrophenol	ND	100		µg/L	1	8/29/2012 2:20:26 AM
2,4-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Fluoranthene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Fluorene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Hexachlorobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Hexachlorobutadiene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Hexachloroethane	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Isophorone	ND	50		µg/L	1	8/29/2012 2:20:26 AM
1-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Methylnaphthalene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Methylphenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
3+4-Methylphenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	8/29/2012 2:20:26 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	8/29/2012 2:20:26 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Naphthalene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Nitroaniline	ND	50		µg/L	1	8/29/2012 2:20:26 AM
3-Nitroaniline	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Nitroaniline	ND	100		µg/L	1	8/29/2012 2:20:26 AM
Nitrobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2-Nitrophenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
4-Nitrophenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Pentachlorophenol	ND	100		µg/L	1	8/29/2012 2:20:26 AM
Phenanthrene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Phenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Pyrene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Pyridine	ND	50		µg/L	1	8/29/2012 2:20:26 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	8/29/2012 2:20:26 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:20:00 PM
Lab ID: 1208990-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4,6-Trichlorophenol	ND	50		µg/L	1	8/29/2012 2:20:26 AM
Surr: 2,4,6-Tribromophenol	104	44.2-126		%REC	1	8/29/2012 2:20:26 AM
Surr: 2-Fluorobiphenyl	90.0	37-114		%REC	1	8/29/2012 2:20:26 AM
Surr: 2-Fluorophenol	68.6	23.4-98		%REC	1	8/29/2012 2:20:26 AM
Surr: 4-Terphenyl-d14	78.4	41.3-116		%REC	1	8/29/2012 2:20:26 AM
Surr: Nitrobenzene-d5	87.0	39.5-118		%REC	1	8/29/2012 2:20:26 AM
Surr: Phenol-d5	56.4	20.9-95.9		%REC	1	8/29/2012 2:20:26 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 3:09:44 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 3:09:44 AM
Acetone	14	10		µg/L	1	8/25/2012 3:09:44 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 3:09:44 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 3:09:44 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 3:09:44 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 3:09:44 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 5:20:00 PM
Lab ID: 1208990-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 3:09:44 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 3:09:44 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 3:09:44 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 3:09:44 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 3:09:44 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 3:09:44 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 3:09:44 AM
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	8/25/2012 3:09:44 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	8/25/2012 3:09:44 AM
Surr: Dibromofluoromethane	98.0	70-130		%REC	1	8/25/2012 3:09:44 AM
Surr: Toluene-d8	106	70-130		%REC	1	8/25/2012 3:09:44 AM
SM4500-H+B: PH						Analyst: **IDC**
pH	8.91	1.68	*H	pH units	1	8/24/2012 12:26:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 5:50:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Naphthalene	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:06:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/25/2012 4:06:12 AM
Acetone	ND	10		µg/L	1	8/25/2012 4:06:12 AM
Bromobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Bromoform	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Bromomethane	ND	3.0		µg/L	1	8/25/2012 4:06:12 AM
2-Butanone	ND	10		µg/L	1	8/25/2012 4:06:12 AM
Carbon disulfide	ND	10		µg/L	1	8/25/2012 4:06:12 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Chlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Chloroethane	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
Chloroform	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Chloromethane	ND	3.0		µg/L	1	8/25/2012 4:06:12 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Dibromomethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
2-Hexanone	ND	10		µg/L	1	8/25/2012 4:06:12 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208990-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 5:50:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/25/2012 4:06:12 AM
Methylene Chloride	ND	3.0		µg/L	1	8/25/2012 4:06:12 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/25/2012 4:06:12 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Styrene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/25/2012 4:06:12 AM
Vinyl chloride	ND	1.0		µg/L	1	8/25/2012 4:06:12 AM
Xylenes, Total	ND	1.5		µg/L	1	8/25/2012 4:06:12 AM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	1	8/25/2012 4:06:12 AM
Surr: 4-Bromofluorobenzene	94.5	70-130		%REC	1	8/25/2012 4:06:12 AM
Surr: Dibromofluoromethane	95.3	70-130		%REC	1	8/25/2012 4:06:12 AM
Surr: Toluene-d8	102	70-130		%REC	1	8/25/2012 4:06:12 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
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Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 29, 2012

Date Received : August 24, 2012
Description :

ESC Sample # : L591695-01

Sample ID : 1208990-001E INFL TO AL-2

Site ID :

Project # :

Collected By :
Collection Date : 08/21/12 17:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	240	10.	mg/l	410.4	08/29/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/29/12 16:57 Printed: 08/29/12 16:57

ESC
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 29, 2012

ESC Sample # : L591695-02

Date Received : August 24, 2012
Description :

Site ID :

Sample ID : 1208990-002G INFL TO EP-1

Project # :

Collected By :
Collection Date : 08/21/12 17:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	260	250	mg/l	410.4	08/28/12	25

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 08/29/12 16:57 Printed: 08/29/12 16:57

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Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L591695

August 29, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG609724	08/28/12 16:03
COD	< 10	mg/l			WG609949	08/29/12 15:26

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	14.0	15.0	5.48*	5	L591808-01	WG609724
COD	mg/l	0	0	0	5	L591399-02	WG609724
COD	mg/l	1100	1100	0.905	5	L591566-01	WG609949
COD	mg/l	1200	1200	1.65	5	L591566-02	WG609949
COD	mg/l	1000	1000	4.88	5	L591566-03	WG609949
COD	mg/l	110000	120000	5.13*	5	L591636-01	WG609949
COD	mg/l	240.	240.	1.65	5	L591695-01	WG609949
COD	mg/l	15000	16000	6.45*	5	L591334-01	WG609949

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	238.	103.	90-110	WG609724
COD	mg/l	230	239.	104.	90-110	WG609949

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	240.	238.	104.	90-110	0.837	5	WG609724
COD	mg/l	240.	239.	104.	90-110	0.418	5	WG609949

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	486.	84.0	400	100.	90-110	L591674-01	WG609724
COD	mg/l	412.	9.30	400	101.	90-110	L591817-01	WG609949

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	488.	486.	101.	90-110	0.411	5	L591674-01	WG609724
COD	mg/l	412.	412.	101.	90-110	0	5	L591817-01	WG609949

Batch number /Run number / Sample number cross reference

WG609724: R2320393: L591695-01 02
WG609949: R2322374: L591695-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
mium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
per	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
nesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3476** RunNo: **5311**

Prep Date: **8/24/2012** Analysis Date: **9/5/2012** SeqNo: **151201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3476** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3476** RunNo: **5311**

Prep Date: **8/24/2012** Analysis Date: **9/5/2012** SeqNo: **151202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
nic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	**MB-3476**	SampType: **MBLK**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID: **3476**		RunNo: **5392**					
Prep Date:	**8/24/2012**	Analysis Date: **9/6/2012**		SeqNo: **153678**		Units: **mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	**MB-3476**	SampType: **MBLK**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID: **3476**		RunNo: **5508**					
Prep Date:	**8/24/2012**	Analysis Date: **9/13/2012**		SeqNo: **157423**		Units: **mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.9	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			
Bromide	2.4	0.10	2.500	0	94.8	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.5	90	110			

Sample ID **1208940-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0.1511	77.9	76.6	110			
Nitrogen, Nitrite (As N)	0.81	0.10	1.000	0	81.0	72.5	111			
Bromide	2.6	0.10	2.500	0.3290	91.2	83.3	107			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.1243	96.7	90.4	113			

Sample ID **1208940-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143394** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.55	0.10	0.5000	0.1511	79.8	76.6	110	1.74	20	
Nitrogen, Nitrite (As N)	0.81	0.10	1.000	0	80.9	72.5	111	0.116	20	
Bromide	2.6	0.10	2.500	0.3290	91.1	83.3	107	0.0223	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0.1243	96.9	90.4	113	0.226	20	

Sample ID **1208996-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5064**	RunNo: **5064**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **143430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-002BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/22/2012** SeqNo: **143430** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3631	89.6	76.6	110			
Nitrogen, Nitrite (As N)	0.83	0.10	1.000	0	83.2	72.5	111			
Bromide	3.0	0.10	2.500	0.6420	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.5	74.5	115			

Sample ID **1208996-002BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/22/2012** SeqNo: **143431** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.82	0.10	0.5000	0.3631	90.8	76.6	110	0.787	20	
Nitrogen, Nitrite (As N)	0.83	0.10	1.000	0	83.5	72.5	111	0.306	20	
Bromide	3.0	0.10	2.500	0.6420	94.2	83.3	107	0.0749	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.7	74.5	115	0.225	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

ent ID: **PBW** Batch ID: **R5064** RunNo: **5064**

ep Date: Analysis Date: **8/23/2012** SeqNo: **143470** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143471** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.6	90	110			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	94.5	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			

Sample ID **1208A06-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A06-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110			S
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	92.8	72.5	111			
Bromide	2.4	0.10	2.500	0	95.2	83.3	107			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90.4	113			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0.1859	95.7	74.5	115			

Sample ID **1208A06-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5064** RunNo: **5064**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143474** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.60	0.10	0.5000	0	120	76.6	110	0.217	20	S
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	91.9	72.5	111	1.01	20	
Bromide	2.4	0.10	2.500	0	94.2	83.3	107	1.06	20	
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.1	90.4	113	0.898	20	
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0.1859	94.7	74.5	115	0.967	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143850** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143852** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Sulfate	9.3	0.50	10.00	0	93.3	90	110			

Sample ID **1208A37-001DMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5077** RunNo: **5077**

Prep Date: Analysis Date: **8/23/2012** SeqNo: **143866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	14.01	107	87.8	111			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	**1208A37-001DMSD**	SampType: **MSD**		TestCode: **EPA Method 300.0: Anions**					
Client ID:	**BatchQC**	Batch ID: **R5077**		RunNo: **5077**					
Prep Date:		Analysis Date: **8/23/2012**		SeqNo: **143868**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	14.01	109	87.8	111	0.338	20	
Sulfate	73	0.50	10.00	63.63	97.3	84.6	122	0.485	20	E

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3460**	SampType: **MBLK**			TestCode: **EPA Method 8015B: Diesel Range**					
Client ID: **PBW**	Batch ID: **3460**			RunNo: **5044**					
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**			SeqNo: **143373**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**			TestCode: **EPA Method 8015B: Diesel Range**					
Client ID: **LCSW**	Batch ID: **3460**			RunNo: **5044**					
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**			SeqNo: **143388**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**			TestCode: **EPA Method 8015B: Diesel Range**					
Client ID: **LCSS02**	Batch ID: **3460**			RunNo: **5044**					
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**			SeqNo: **143389**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.2	69.8	119			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID **1208990-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl to AL-2**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
oline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
rr: BFB	210		200.0		106	69.8	119			

Sample ID **1208990-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **Infl to AL-2**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145099** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145100** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID **1208A05-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145103** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID **1208A05-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5110**	RunNo: **5110**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145104** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**	
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
anone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**	
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyciopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
oaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	110		200.0		55.0	44.2	126			
Surr: 2-Fluorobiphenyl	43		100.0		43.1	37	114			
Surr: 2-Fluorophenol	78		200.0		38.9	23.4	98			
Surr: 4-Terphenyl-d14	47		100.0		46.6	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		44.9	39.5	118			
Surr: Phenol-d5	62		200.0		31.0	20.9	95.9			

ifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3477** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **3477** RunNo: **5155**

Prep Date: **8/24/2012** Analysis Date: **8/28/2012** SeqNo: **146456** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.4	38.2	99.4			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	35.5	108			
2-Chlorophenol	120	10	200.0	0	58.5	29.8	106			
1,4-Dichlorobenzene	49	10	100.0	0	49.3	32.6	91.5			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	44.7	112			
N-Nitrosodi-n-propylamine	72	10	100.0	0	71.5	38.5	105			
4-Nitrophenol	94	10	200.0	0	47.2	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	63.4	20.2	93			
Phenol	94	10	200.0	0	47.1	23	66.1			
Pyrene	60	10	100.0	0	59.8	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	52.3	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114			
Surr: 2-Fluorophenol	110		200.0		52.9	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.2	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-3477** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **3477** RunNo: **5155**

Prep Date: **8/24/2012** Analysis Date: **8/28/2012** SeqNo: **146458** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	38.2	99.4	7.42	20	
4-Chloro-3-methylphenol	150	10	200.0	0	76.2	35.5	108	3.38	20	
2-Chlorophenol	120	10	200.0	0	61.2	29.8	106	4.43	20	
1,4-Dichlorobenzene	50	10	100.0	0	50.1	32.6	91.5	1.61	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.0	44.7	112	17.4	20	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.5	38.5	105	2.89	20	
4-Nitrophenol	110	10	200.0	0	55.7	11.6	73.1	16.4	20	
Pentachlorophenol	150	20	200.0	0	73.7	20.2	93	15.1	20	
Phenol	93	10	200.0	0	46.5	23	66.1	1.37	20	
Pyrene	65	10	100.0	0	65.1	40.1	101	8.43	20	
1,2,4-Trichlorobenzene	59	10	100.0	0	58.7	37.7	99.1	11.4	20	
Surr: 2,4,6-Tribromophenol	180		200.0		92.0	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.3	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		52.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	75		100.0		75.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	68		100.0		68.5	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.2	20.9	95.9	0	0	

Qualifiers:

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- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3456**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145574**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-3456**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145575**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-3456**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145576**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	92.9	84.6	115.4			

Sample ID **LCSD-3456**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
nt ID: **LCSS02**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145577**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	93.4	84.6	115.4	0.542	20	

Sample ID **1208937-002ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **3456**	RunNo: **5122**							
Prep Date: **8/23/2012**	Analysis Date: **8/28/2012**	SeqNo: **145582**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	62	2.0						0.0962	20	

fiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208990**

24-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208773-001c dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5115**	RunNo: **5115**							
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145248**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.89	1.68								H

Sample ID **1208774-001b dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5115**	RunNo: **5115**							
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145265**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.84	1.68								H

Sample ID **1208942-001a dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5115**	RunNo: **5115**							
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **145278**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.66	1.68								H

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208990

Received by/date: AT 08/22/12

Logged By: Anne Thorne 8/22/2012 1:22:00 PM

Completed By: Anne Thorne 8/22/2012

Reviewed By: 08/22/12

Chain of Custody

1. Were seals intact?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 5 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208990	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
~~8/21/12~~			~~Infl to AL-1~~				X	X	X X X X X X X
8/21/12	1700	GW	Infl to AL-2	10		-001	X	X	X X X X X X X
8/21/12	1720	GW	Infl to EP-1	13		-002	X	X	X X X X X X X
8/21/12	1750	W	Field Blank	3		-003	X		
8/21/12	—	W	~~Trip Blank~~	3	AT	08/22/12 ~~-004~~	X		

Date	Time	Relinquished by:	Received by:	Date	Time
8/22/12	13:22			08/22	1322
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: NO TB /AT 08/22/12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 25, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B31

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B31**
Date Reported: **9/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 9:25:00 AM
Lab ID: 1208B31-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.7	0.10		mg/L	1	8/27/2012 4:37:02 PM
Chloride	82	10		mg/L	20	8/27/2012 4:49:27 PM
Bromide	0.21	0.10		mg/L	1	8/27/2012 4:37:02 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	8/27/2012 4:49:27 PM
Sulfate	940	25		mg/L	50	9/5/2012 8:30:56 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:17:02 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.0084	0.0020		mg/L	1	9/12/2012 8:33:35 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:33:35 PM
Calcium	11	1.0		mg/L	1	9/12/2012 8:33:35 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:33:35 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:33:35 PM
Iron	ND	0.020		mg/L	1	9/12/2012 8:33:35 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:33:35 PM
Magnesium	1.3	1.0		mg/L	1	9/12/2012 8:33:35 PM
Manganese	0.012	0.0020		mg/L	1	9/12/2012 8:33:35 PM
Potassium	2.0	1.0		mg/L	1	9/12/2012 8:33:35 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:33:35 PM
Sodium	640	10		mg/L	10	9/13/2012 11:41:19 AM
Zinc	0.024	0.010		mg/L	1	9/12/2012 8:33:35 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.0086	0.0020		mg/L	1	9/11/2012 11:09:00 AM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:09:00 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:09:00 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:09:00 AM
Iron	0.041	0.020		mg/L	1	9/11/2012 11:09:00 AM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:09:00 AM
Manganese	0.095	0.0020	*	mg/L	1	9/11/2012 11:09:00 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:09:00 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:09:00 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0021	0.0010		mg/L	1	9/11/2012 12:20:44 PM
Selenium	0.0034	0.0010		mg/L	1	9/11/2012 12:20:44 PM
Uranium	0.21	0.010	*	mg/L	10	9/11/2012 3:10:00 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:39:58 PM
Selenium	0.0032	0.0025		mg/L	2.5	9/6/2012 6:39:58 PM
Uranium	0.22	0.0050	*	mg/L	5	9/13/2012 2:13:19 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 9:25:00 AM
Lab ID: 1208B31-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:40:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Aniline	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Anthracene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 6:21:06 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Carbazole	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Chrysene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 6:21:06 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 6:21:06 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 6:21:06 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 6:21:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 9:25:00 AM
Lab ID: 1208B31-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Fluorene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Isophorone	ND	10		µg/L	1	8/29/2012 6:21:06 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 6:21:06 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 6:21:06 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 6:21:06 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 6:21:06 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 6:21:06 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Phenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Pyrene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Pyridine	ND	10		µg/L	1	8/29/2012 6:21:06 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 6:21:06 PM
Surr: 2,4,6-Tribromophenol	86.9	44.2-126		%REC	1	8/29/2012 6:21:06 PM
Surr: 2-Fluorobiphenyl	75.6	37-114		%REC	1	8/29/2012 6:21:06 PM
Surr: 2-Fluorophenol	53.8	23.4-98		%REC	1	8/29/2012 6:21:06 PM
Surr: 4-Terphenyl-d14	74.9	41.3-116		%REC	1	8/29/2012 6:21:06 PM
Surr: Nitrobenzene-d5	80.6	39.5-118		%REC	1	8/29/2012 6:21:06 PM
Surr: Phenol-d5	43.3	20.9-95.9		%REC	1	8/29/2012 6:21:06 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Toluene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-001 **Matrix:** AQUEOUS

Client Sample ID: OW-11
Collection Date: 8/22/2012 9:25:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Naphthalene	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 4:21:20 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 4:21:20 AM
Acetone	ND	10		µg/L	1	8/29/2012 4:21:20 AM
Bromobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Bromoform	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Bromomethane	ND	3.0		µg/L	1	8/29/2012 4:21:20 AM
2-Butanone	ND	10		µg/L	1	8/29/2012 4:21:20 AM
Carbon disulfide	ND	10		µg/L	1	8/29/2012 4:21:20 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Chloroethane	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
Chloroform	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Chloromethane	ND	3.0		µg/L	1	8/29/2012 4:21:20 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Dibromomethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
2-Hexanone	ND	10		µg/L	1	8/29/2012 4:21:20 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-11
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 9:25:00 AM
Lab ID: 1208B31-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2012 4:21:20 AM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2012 4:21:20 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/29/2012 4:21:20 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Styrene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2012 4:21:20 AM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2012 4:21:20 AM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2012 4:21:20 AM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	1	8/29/2012 4:21:20 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	8/29/2012 4:21:20 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/29/2012 4:21:20 AM
Surr: Toluene-d8	96.1	70-130		%REC	1	8/29/2012 4:21:20 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-12
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 6:45:00 AM
Lab ID: 1208B31-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.48	0.10		mg/L	1	8/27/2012 5:01:52 PM
Chloride	16	10		mg/L	20	8/27/2012 5:14:17 PM
Bromide	0.13	0.10		mg/L	1	8/27/2012 5:01:52 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 5:01:52 PM
Sulfate	150	10		mg/L	20	8/27/2012 5:14:17 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:29:27 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.021	0.0020		mg/L	1	9/12/2012 8:41:29 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:41:29 PM
Calcium	1.8	1.0		mg/L	1	9/12/2012 8:41:29 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:41:29 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:41:29 PM
Iron	0.053	0.020		mg/L	1	9/12/2012 8:41:29 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:41:29 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 8:41:29 PM
Manganese	0.0033	0.0020		mg/L	1	9/12/2012 8:41:29 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 8:41:29 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:41:29 PM
Sodium	270	5.0		mg/L	5	9/12/2012 8:45:28 PM
Zinc	0.031	0.010		mg/L	1	9/12/2012 8:41:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.028	0.0020		mg/L	1	9/11/2012 11:25:57 AM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:25:57 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:25:57 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:25:57 AM
Iron	0.29	0.020		mg/L	1	9/11/2012 11:25:57 AM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:25:57 AM
Manganese	0.013	0.0020		mg/L	1	9/11/2012 11:25:57 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:25:57 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:25:57 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0018	0.0010		mg/L	1	9/11/2012 12:24:40 PM
Selenium	ND	0.0010		mg/L	1	9/11/2012 12:24:40 PM
Uranium	0.012	0.0010		mg/L	1	9/11/2012 12:24:40 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:41:51 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:41:51 PM
Uranium	0.012	0.0025		mg/L	2.5	9/13/2012 2:09:34 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-12
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 6:45:00 AM
Lab ID: 1208B31-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 1:42:17 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Aniline	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Anthracene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Azobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Benzoic acid	ND	20		µg/L	1	8/29/2012 6:51:11 PM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Carbazole	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Chrysene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 6:51:11 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 6:51:11 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 6:51:11 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 6:51:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-002 **Matrix:** AQUEOUS

Client Sample ID: OW-12
Collection Date: 8/22/2012 6:45:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Fluoranthene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Fluorene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Isophorone	ND	10		µg/L	1	8/29/2012 6:51:11 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 6:51:11 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 6:51:11 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Naphthalene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 6:51:11 PM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 6:51:11 PM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 6:51:11 PM
Phenanthrene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Phenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Pyrene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Pyridine	ND	10		µg/L	1	8/29/2012 6:51:11 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 6:51:11 PM
Surr: 2,4,6-Tribromophenol	86.4	44.2-126		%REC	1	8/29/2012 6:51:11 PM
Surr: 2-Fluorobiphenyl	70.5	37-114		%REC	1	8/29/2012 6:51:11 PM
Surr: 2-Fluorophenol	51.6	23.4-98		%REC	1	8/29/2012 6:51:11 PM
Surr: 4-Terphenyl-d14	71.2	41.3-116		%REC	1	8/29/2012 6:51:11 PM
Surr: Nitrobenzene-d5	79.4	39.5-118		%REC	1	8/29/2012 6:51:11 PM
Surr: Phenol-d5	42.1	20.9-95.9		%REC	1	8/29/2012 6:51:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Toluene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-12
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/22/2012 6:45:00 AM
Lab ID: 1208B31-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Naphthalene	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 4:50:44 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 4:50:44 AM
Acetone	ND	10		µg/L	1	8/29/2012 4:50:44 AM
Bromobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Bromoform	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Bromomethane	ND	3.0		µg/L	1	8/29/2012 4:50:44 AM
2-Butanone	ND	10		µg/L	1	8/29/2012 4:50:44 AM
Carbon disulfide	ND	10		µg/L	1	8/29/2012 4:50:44 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Chloroethane	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
Chloroform	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Chloromethane	ND	3.0		µg/L	1	8/29/2012 4:50:44 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Dibromomethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
2-Hexanone	ND	10		µg/L	1	8/29/2012 4:50:44 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-002 **Matrix:** AQUEOUS

Client Sample ID: OW-12
Collection Date: 8/22/2012 6:45:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2012 4:50:44 AM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2012 4:50:44 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/29/2012 4:50:44 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Styrene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2012 4:50:44 AM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2012 4:50:44 AM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2012 4:50:44 AM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	8/29/2012 4:50:44 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	8/29/2012 4:50:44 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	8/29/2012 4:50:44 AM
Surr: Toluene-d8	98.5	70-130		%REC	1	8/29/2012 4:50:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/22/2012 9:35:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Toluene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Naphthalene	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 5:20:13 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 5:20:13 AM
Acetone	ND	10		µg/L	1	8/29/2012 5:20:13 AM
Bromobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Bromoform	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Bromomethane	ND	3.0		µg/L	1	8/29/2012 5:20:13 AM
2-Butanone	ND	10		µg/L	1	8/29/2012 5:20:13 AM
Carbon disulfide	ND	10		µg/L	1	8/29/2012 5:20:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Chloroethane	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
Chloroform	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Chloromethane	ND	3.0		µg/L	1	8/29/2012 5:20:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Dibromomethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
2-Hexanone	ND	10		µg/L	1	8/29/2012 5:20:13 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/22/2012 9:35:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2012 5:20:13 AM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2012 5:20:13 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/29/2012 5:20:13 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Styrene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2012 5:20:13 AM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2012 5:20:13 AM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2012 5:20:13 AM
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	1	8/29/2012 5:20:13 AM
Surr: 4-Bromofluorobenzene	99.9	70-130		%REC	1	8/29/2012 5:20:13 AM
Surr: Dibromofluoromethane	104	70-130		%REC	1	8/29/2012 5:20:13 AM
Surr: Toluene-d8	95.0	70-130		%REC	1	8/29/2012 5:20:13 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B31-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Toluene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Ethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Naphthalene	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 5:49:25 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/29/2012 5:49:25 AM
Acetone	ND	10		µg/L	1	8/29/2012 5:49:25 AM
Bromobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Bromoform	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Bromomethane	ND	3.0		µg/L	1	8/29/2012 5:49:25 AM
2-Butanone	ND	10		µg/L	1	8/29/2012 5:49:25 AM
Carbon disulfide	ND	10		µg/L	1	8/29/2012 5:49:25 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Chlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Chloroethane	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
Chloroform	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Chloromethane	ND	3.0		µg/L	1	8/29/2012 5:49:25 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Dibromomethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
2-Hexanone	ND	10		µg/L	1	8/29/2012 5:49:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B31-004 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/29/2012 5:49:25 AM
Methylene Chloride	ND	3.0		µg/L	1	8/29/2012 5:49:25 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/29/2012 5:49:25 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Styrene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/29/2012 5:49:25 AM
Vinyl chloride	ND	1.0		µg/L	1	8/29/2012 5:49:25 AM
Xylenes, Total	ND	1.5		µg/L	1	8/29/2012 5:49:25 AM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	8/29/2012 5:49:25 AM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	8/29/2012 5:49:25 AM
Surr: Dibromofluoromethane	97.5	70-130		%REC	1	8/29/2012 5:49:25 AM
Surr: Toluene-d8	96.2	70-130		%REC	1	8/29/2012 5:49:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5189**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147585** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3525**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3525**	RunNo: **5189**
Prep Date: **8/29/2012**	Analysis Date: **8/29/2012**	SeqNo: **147586** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
p Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

lifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C13-006AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	61	1.0	50.00	10.91	99.6	70	130			

Sample ID **1208C13-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	62	1.0	50.00	10.91	102	70	130	1.97	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157572** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
nt ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0.04813	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3525** RunNo: **5189**

Prep Date: **8/29/2012** Analysis Date: **8/29/2012** SeqNo: **147561** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3525** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3525** RunNo: **5189**

Prep Date: **8/29/2012** Analysis Date: **8/29/2012** SeqNo: **147562** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
Chromium	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.48	0.0060	0.5000	0	96.7	85	115			
Iron	0.46	0.020	0.5000	0	92.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.1	85	115			
Silver	0.091	0.0050	0.1000	0	90.7	85	115			
Zinc	0.45	0.010	0.5000	0.003020	89.7	85	115			

Sample ID **1208B32-002EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3525** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.51	0.0060	0.5000	0	101	70	130			
Copper	0.55	0.0060	0.5000	0	111	70	130			
Iron	0.53	0.020	0.5000	0.03049	101	70	130			
Lead	0.50	0.0050	0.5000	0	101	70	130			
Manganese	0.50	0.0020	0.5000	0.003420	99.3	70	130			
Silver	0.083	0.0050	0.1000	0	83.1	70	130			
Zinc	0.51	0.010	0.5000	0.004410	102	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B32-002EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3525** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154045** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.03742	101	70	130	0.161	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.150	20	
Chromium	0.50	0.0060	0.5000	0	100	70	130	0.617	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.586	20	
Iron	0.54	0.020	0.5000	0.03049	102	70	130	0.996	20	
Lead	0.50	0.0050	0.5000	0	101	70	130	0.131	20	
Manganese	0.50	0.0020	0.5000	0.003420	99.5	70	130	0.180	20	
Silver	0.081	0.0050	0.1000	0	80.6	70	130	3.13	20	
Zinc	0.51	0.010	0.5000	0.004410	101	70	130	0.933	20	

Sample ID **MB-3525** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3525** RunNo: **5231**

Prep Date: **8/29/2012** Analysis Date: **8/30/2012** SeqNo: **159950** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

ıple ID **LCS-3525** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3525** RunNo: **5231**

Prep Date: **8/29/2012** Analysis Date: **8/30/2012** SeqNo: **159951** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0	96.2	85	115			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5235**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148846** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208932-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.005874	96.1	70	130			
Selenium	0.026	0.0010	0.02500	0.002644	93.5	70	130			

Sample ID **1208C61-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001791	98.5	70	130			
Selenium	0.027	0.0010	0.02500	0.002323	100	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

...all Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

...fiers:

- ... Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154885** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208C13-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002387	103	70	130			
Selenium	0.026	0.0010	0.02500	0.0004619	104	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3525**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3525**	RunNo: **5235**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148879** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3672**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3672**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1208B33-004EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0052	0.00020	0.005000	0	104	75	125			

Sample ID **1208B33-004EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3672**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	1.79	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID **1208B32-001CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID **1208B32-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID **1208B37-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20	
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID **1208B33-006CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID **1208B33-006CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20	
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151555** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151556** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.8	0.50	10.00	0	98.0	90	110			

Sample ID **1209065-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.34	104	84.6	122			

Sample ID **1209065-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.34	105	84.6	122	0.241	20	

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146523** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146523** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
Trichlorobenzene	ND	1.0								
,,,-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.6	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcsd**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146524** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.1	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
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- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcsd**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146524** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.5		10.00		94.5	70	130			
Surr: Toluene-d8	9.4		10.00		93.6	70	130			

Sample ID **1208a91-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	66.8	128			
Toluene	19	1.0	20.00	0	95.7	70	130			
Chlorobenzene	18	1.0	20.00	0	90.0	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.1	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.6	70	130			
Surr: Toluene-d8	9.3		10.00		92.6	70	130			

Sample ID **1208a91-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5160**	RunNo: **5160**
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146533** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.1	66.8	128	2.89	16.7	
Toluene	19	1.0	20.00	0	92.7	70	130	3.16	18.7	
Chlorobenzene	19	1.0	20.00	0	97.1	70	130	7.54	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	96.0	70	130	7.52	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	96.8	70	130	1.34	17.5	
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.2	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		90.8	70	130	0	0	
Surr: Toluene-d8	9.2		10.00		92.0	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

...ll Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
...nophenyl phenyl ether	ND	10								
B...oenzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Q...fiers:

- ... Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B31**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
r: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1208B31

Received by/date: LM 08/24/12

Logged By: Anne Thorne 8/24/2012 3:40:00 PM Ann Thorne

Completed By: Anne Thorne 8/27/2012 Ann Thorne

Reviewed By: 08/27/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208831	BTEX + MTBE + TMB's (8021)	TPH (Method 8015B)	WQCC Metals (Total and Dissolved)														Air Bubbles (Y or N)
8/22/12	0925	GW	OW-11	8		-001	X	X	X	X													
8/22/12	0645	GW	OW-12	8		-002	X	X	X	X													
8/22/12	0935	W	Field Blank	3		-003	X																
8/22/12	—	W	Trip Blank	3		-004	X																

Date	Time	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	08/24/12	1540

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 25, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B35

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B35**
Date Reported: **9/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-001 **Matrix:** AQUEOUS

Client Sample ID: SMW-2
Collection Date: 8/23/2012 8:46:07 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 5:09:51 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 5:09:51 AM
Surr: DNOP	135	79.5-166		%REC	1	8/28/2012 5:09:51 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.28	0.050		mg/L	1	8/30/2012 12:49:19 PM
Surr: BFB	1090	69.8-119	S	%REC	1	8/30/2012 12:49:19 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.16	0.10		mg/L	1	8/27/2012 8:50:11 PM
Chloride	2400	100		mg/L	200	9/5/2012 7:28:54 PM
Bromide	8.4	2.0		mg/L	20	8/27/2012 9:02:35 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 8:50:11 PM
Sulfate	1600	25		mg/L	50	9/5/2012 7:16:30 PM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	9/5/2012 7:41:19 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.016	0.0020		mg/L	1	9/12/2012 8:03:51 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:03:51 PM
Calcium	260	5.0		mg/L	5	9/12/2012 8:07:56 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:03:51 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:03:51 PM
Iron	0.042	0.020		mg/L	1	9/12/2012 8:03:51 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:03:51 PM
Magnesium	84	1.0		mg/L	1	9/12/2012 8:03:51 PM
Manganese	0.22	0.0020	*	mg/L	1	9/12/2012 8:03:51 PM
Potassium	1.9	1.0		mg/L	1	9/12/2012 8:03:51 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:03:51 PM
Sodium	2100	50		mg/L	50	9/13/2012 11:37:36 AM
Zinc	0.029	0.010		mg/L	1	9/12/2012 8:03:51 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.038	0.0020		mg/L	1	9/10/2012 9:32:01 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:32:01 AM
Chromium	0.17	0.0060	*	mg/L	1	9/10/2012 9:32:01 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:32:01 AM
Iron	1.5	0.10	*	mg/L	5	9/10/2012 9:34:50 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:32:01 AM
Manganese	0.25	0.0020	*	mg/L	1	9/10/2012 9:32:01 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:01:32 AM
Zinc	0.021	0.010		mg/L	1	9/10/2012 9:32:01 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0050		mg/L	5	9/6/2012 4:31:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-001 **Matrix:** AQUEOUS

Client Sample ID: SMW-2
Collection Date: 8/23/2012 8:46:07 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0072	0.0050		mg/L	5	9/6/2012 4:31:14 PM
Uranium	0.10	0.0050	*	mg/L	5	9/6/2012 4:31:14 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0050	0.0025		mg/L	2.5	9/6/2012 6:43:43 PM
Selenium	0.0072	0.0025		mg/L	2.5	9/6/2012 6:43:43 PM
Uranium	0.11	0.0025	*	mg/L	2.5	9/13/2012 2:15:11 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:03:40 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Aniline	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Anthracene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 1:35:23 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Carbazole	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Chrysene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 1:35:23 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 8:46:07 AM
Lab ID: 1208B35-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 1:35:23 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 1:35:23 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 1:35:23 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Fluorene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Isophorone	ND	10		µg/L	1	8/31/2012 1:35:23 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 1:35:23 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 1:35:23 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Naphthalene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:35:23 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 1:35:23 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 1:35:23 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Phenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Pyrene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Pyridine	ND	10		µg/L	1	8/31/2012 1:35:23 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:35:23 PM
Surr: 2,4,6-Tribromophenol	69.9	44.2-126		%REC	1	8/31/2012 1:35:23 PM
Surr: 2-Fluorobiphenyl	88.8	37-114		%REC	1	8/31/2012 1:35:23 PM

Qualifiers:
- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-001 **Matrix:** AQUEOUS

Client Sample ID: SMW-2
Collection Date: 8/23/2012 8:46:07 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	49.3	23.4-98		%REC	1	8/31/2012 1:35:23 PM
Surr: 4-Terphenyl-d14	77.5	41.3-116		%REC	1	8/31/2012 1:35:23 PM
Surr: Nitrobenzene-d5	90.9	39.5-118		%REC	1	8/31/2012 1:35:23 PM
Surr: Phenol-d5	45.6	20.9-95.9		%REC	1	8/31/2012 1:35:23 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Toluene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Ethylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Methyl tert-butyl ether (MTBE)	12	10		µg/L	10	8/31/2012 11:43:46 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Naphthalene	ND	20		µg/L	10	8/31/2012 11:43:46 AM
1-Methylnaphthalene	ND	40		µg/L	10	8/31/2012 11:43:46 AM
2-Methylnaphthalene	ND	40		µg/L	10	8/31/2012 11:43:46 AM
Acetone	ND	100		µg/L	10	8/31/2012 11:43:46 AM
Bromobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Bromodichloromethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Bromoform	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Bromomethane	ND	30		µg/L	10	8/31/2012 11:43:46 AM
2-Butanone	ND	100		µg/L	10	8/31/2012 11:43:46 AM
Carbon disulfide	ND	100		µg/L	10	8/31/2012 11:43:46 AM
Carbon Tetrachloride	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Chlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Chloroethane	ND	20		µg/L	10	8/31/2012 11:43:46 AM
Chloroform	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Chloromethane	ND	30		µg/L	10	8/31/2012 11:43:46 AM
2-Chlorotoluene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
4-Chlorotoluene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
cis-1,2-DCE	ND	10		µg/L	10	8/31/2012 11:43:46 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/31/2012 11:43:46 AM
Dibromochloromethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Dibromomethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Dichlorodifluoromethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1-Dichloroethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1-Dichloroethene	ND	10		µg/L	10	8/31/2012 11:43:46 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 8:46:07 AM
Lab ID: 1208B35-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,3-Dichloropropane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
2,2-Dichloropropane	ND	20		µg/L	10	8/31/2012 11:43:46 AM
1,1-Dichloropropene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Hexachlorobutadiene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
2-Hexanone	ND	100		µg/L	10	8/31/2012 11:43:46 AM
Isopropylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
4-Isopropyltoluene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/31/2012 11:43:46 AM
Methylene Chloride	ND	30		µg/L	10	8/31/2012 11:43:46 AM
n-Butylbenzene	ND	30		µg/L	10	8/31/2012 11:43:46 AM
n-Propylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
sec-Butylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Styrene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
tert-Butylbenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/31/2012 11:43:46 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/31/2012 11:43:46 AM
trans-1,2-DCE	ND	10		µg/L	10	8/31/2012 11:43:46 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Trichloroethene (TCE)	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Trichlorofluoromethane	ND	10		µg/L	10	8/31/2012 11:43:46 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/31/2012 11:43:46 AM
Vinyl chloride	ND	10		µg/L	10	8/31/2012 11:43:46 AM
Xylenes, Total	ND	15		µg/L	10	8/31/2012 11:43:46 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	10	8/31/2012 11:43:46 AM
Surr: 4-Bromofluorobenzene	85.7	70-130		%REC	10	8/31/2012 11:43:46 AM
Surr: Dibromofluoromethane	85.9	70-130		%REC	10	8/31/2012 11:43:46 AM
Surr: Toluene-d8	90.2	70-130		%REC	10	8/31/2012 11:43:46 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-002 **Matrix:** AQUEOUS

Client Sample ID: SMW-4
Collection Date: 8/24/2012 10:40:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 5:31:13 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 5:31:13 AM
Surr: DNOP	135	79.5-166		%REC	1	8/28/2012 5:31:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 1:18:04 PM
Surr: BFB	97.8	69.8-119		%REC	1	8/30/2012 1:18:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.0	0.10		mg/L	1	8/27/2012 9:15:00 PM
Chloride	58	10		mg/L	20	8/27/2012 9:27:25 PM
Bromide	0.35	0.10		mg/L	1	8/27/2012 9:15:00 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 9:15:00 PM
Sulfate	150	10		mg/L	20	8/27/2012 9:27:25 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/5/2012 7:53:43 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.016	0.0020		mg/L	1	9/12/2012 8:24:21 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:24:21 PM
Calcium	3.0	1.0		mg/L	1	9/12/2012 8:24:21 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:24:21 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:24:21 PM
Iron	ND	0.020		mg/L	1	9/12/2012 8:24:21 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:24:21 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 8:24:21 PM
Manganese	ND	0.0020		mg/L	1	9/12/2012 8:24:21 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 8:24:21 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:24:21 PM
Sodium	290	5.0		mg/L	5	9/12/2012 8:28:19 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 8:24:21 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.019	0.0020		mg/L	1	9/10/2012 9:39:54 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:39:54 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:39:54 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:39:54 AM
Iron	0.13	0.020		mg/L	1	9/10/2012 9:39:54 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:39:54 AM
Manganese	0.0046	0.0020		mg/L	1	9/10/2012 9:39:54 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:05:19 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:39:54 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0028	0.0010		mg/L	1	9/6/2012 3:43:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:40:00 AM
Lab ID: 1208B35-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/6/2012 3:43:57 PM
Uranium	0.030	0.0010	*	mg/L	1	9/6/2012 3:43:57 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0033	0.0025		mg/L	2.5	9/6/2012 6:45:35 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:45:35 PM
Uranium	0.033	0.0025	*	mg/L	2.5	9/13/2012 2:17:03 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:05:26 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Aniline	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Anthracene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 2:04:54 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Carbazole	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Chrysene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 2:04:54 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-002 **Matrix:** AQUEOUS

Client Sample ID: SMW-4
Collection Date: 8/24/2012 10:40:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 2:04:54 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 2:04:54 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 2:04:54 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Fluorene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Isophorone	ND	10		µg/L	1	8/31/2012 2:04:54 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 2:04:54 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 2:04:54 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Naphthalene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 2:04:54 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 2:04:54 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 2:04:54 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Phenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Pyrene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Pyridine	ND	10		µg/L	1	8/31/2012 2:04:54 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 2:04:54 PM
Surr: 2,4,6-Tribromophenol	96.4	44.2-126		%REC	1	8/31/2012 2:04:54 PM
Surr: 2-Fluorobiphenyl	81.0	37-114		%REC	1	8/31/2012 2:04:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:40:00 AM
Lab ID: 1208B35-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	61.0	23.4-98		%REC	1	8/31/2012 2:04:54 PM
Surr: 4-Terphenyl-d14	72.5	41.3-116		%REC	1	8/31/2012 2:04:54 PM
Surr: Nitrobenzene-d5	76.8	39.5-118		%REC	1	8/31/2012 2:04:54 PM
Surr: Phenol-d5	47.1	20.9-95.9		%REC	1	8/31/2012 2:04:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:15:15 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:15:15 AM
Acetone	ND	10		µg/L	1	8/31/2012 4:15:15 AM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:15:15 AM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:15:15 AM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:15:15 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:15:15 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-002 **Matrix:** AQUEOUS

Client Sample ID: SMW-4
Collection Date: 8/24/2012 10:40:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:15:15 AM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:15:15 AM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:15:15 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:15:15 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:15:15 AM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:15:15 AM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:15:15 AM
Surr: 1,2-Dichloroethane-d4	85.4	70-130		%REC	1	8/31/2012 4:15:15 AM
Surr: 4-Bromofluorobenzene	88.8	70-130		%REC	1	8/31/2012 4:15:15 AM
Surr: Dibromofluoromethane	85.5	70-130		%REC	1	8/31/2012 4:15:15 AM
Surr: Toluene-d8	85.4	70-130		%REC	1	8/31/2012 4:15:15 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 11:30:00 AM
Lab ID: 1208B35-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Toluene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:42:56 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 4:42:56 AM
Acetone	ND	10		µg/L	1	8/31/2012 4:42:56 AM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Bromoform	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 4:42:56 AM
2-Butanone	ND	10		µg/L	1	8/31/2012 4:42:56 AM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 4:42:56 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
Chloroform	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 4:42:56 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
2-Hexanone	ND	10		µg/L	1	8/31/2012 4:42:56 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012 11:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 4:42:56 AM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 4:42:56 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 4:42:56 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Styrene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 4:42:56 AM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 4:42:56 AM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 4:42:56 AM
Surr: 1,2-Dichloroethane-d4	84.6	70-130		%REC	1	8/31/2012 4:42:56 AM
Surr: 4-Bromofluorobenzene	86.4	70-130		%REC	1	8/31/2012 4:42:56 AM
Surr: Dibromofluoromethane	87.3	70-130		%REC	1	8/31/2012 4:42:56 AM
Surr: Toluene-d8	81.7	70-130		%REC	1	8/31/2012 4:42:56 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012
Lab ID: 1208B35-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Toluene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:10:49 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 5:10:49 AM
Acetone	ND	10		µg/L	1	8/31/2012 5:10:49 AM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Bromoform	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 5:10:49 AM
2-Butanone	ND	10		µg/L	1	8/31/2012 5:10:49 AM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 5:10:49 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
Chloroform	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 5:10:49 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
2-Hexanone	ND	10		µg/L	1	8/31/2012 5:10:49 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B35-004 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date: 8/24/2012
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 5:10:49 AM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 5:10:49 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 5:10:49 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Styrene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 5:10:49 AM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 5:10:49 AM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 5:10:49 AM
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	8/31/2012 5:10:49 AM
Surr: 4-Bromofluorobenzene	86.0	70-130		%REC	1	8/31/2012 5:10:49 AM
Surr: Dibromofluoromethane	86.4	70-130		%REC	1	8/31/2012 5:10:49 AM
Surr: Toluene-d8	86.7	70-130		%REC	1	8/31/2012 5:10:49 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
ɔ Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
p Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C13-006AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	61	1.0	50.00	10.91	99.6	70	130			

Sample ID **1208C13-006AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	62	1.0	50.00	10.91	102	70	130	1.97	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157572** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	52	1.0	50.00	0.04813	104	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5512** RunNo: **5512**
Prep Date: Analysis Date: **9/13/2012** SeqNo: **157634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	101	85	115			

ıfiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3526**	RunNo: **5404**
Prep Date: **8/29/2012**	Analysis Date: **9/10/2012**	SeqNo: **154029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3526**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3526**	RunNo: **5404**
Prep Date: **8/29/2012**	Analysis Date: **9/10/2012**	SeqNo: **154030** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	99.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Lead	0.49	0.0050	0.5000	0	98.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.1	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID **1208B33-003EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **3526**	RunNo: **5404**
Prep Date: **8/29/2012**	Analysis Date: **9/10/2012**	SeqNo: **154057** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04450	106	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			
Iron	0.66	0.020	0.5000	0.1192	108	70	130			
Lead	0.52	0.0050	0.5000	0	105	70	130			
Manganese	0.68	0.0020	0.5000	0.1610	104	70	130			
Zinc	0.53	0.010	0.5000	0.001530	106	70	130			

Sample ID **1208B33-003EMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **3526**	RunNo: **5404**
Prep Date: **8/29/2012**	Analysis Date: **9/10/2012**	SeqNo: **154058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.04450	104	70	130	1.69	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	1.27	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	1.19	20	
Copper	0.56	0.0060	0.5000	0	112	70	130	1.83	20	
Iron	0.65	0.020	0.5000	0.1192	105	70	130	2.21	20	
Lead	0.52	0.0050	0.5000	0	103	70	130	1.18	20	
Manganese	0.67	0.0020	0.5000	0.1610	101	70	130	2.31	20	
Zinc	0.53	0.010	0.5000	0.001530	105	70	130	1.02	20	

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3526** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	96.8	85	115			

Sample ID **1208B33-003EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155112** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.065	0.0050	0.1000	0	64.6	70	130			S

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155113** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.069	0.0050	0.1000	0	69.3	70	130	6.99	20	S

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **3526**	RunNo: **5235**							
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148847**	Units: **mg/L**						

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
[illegible]nium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **SMW-2** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

[illegible]ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**			TestCode: **200.8 ICPMS Metals:Total**						
Client ID: **PBW**	Batch ID: **3526**			RunNo: **5235**						
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**			SeqNo: **148880**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3705**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3705**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	80	120			

Sample ID **1208A83-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	75	125			

Sample ID **1208A83-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.517	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B39-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.5	76.6	110			
Chloride	9.9	0.50	5.000	4.684	105	87.8	111			
Bromide	2.5	0.10	2.500	0.09394	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	97.0	74.5	115			
Sulfate	29	0.50	10.00	18.80	104	84.6	122			

Sample ID **1208B39-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.9	76.6	110	0.136	20	
Chloride	9.8	0.50	5.000	4.684	103	87.8	111	1.03	20	
Bromide	2.4	0.10	2.500	0.09394	92.3	83.3	107	2.02	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.4	74.5	115	1.64	20	
Sulfate	29	0.50	10.00	18.80	100	84.6	122	1.21	20	

nple ID **1208B66-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	90.8	76.6	110			
Chloride	18	0.50	5.000	11.71	117	87.8	111			S
Bromide	2.2	0.10	2.500	0	89.4	83.3	107			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115			

Sample ID **1208B66-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	95.3	76.6	110	0.921	20	
Chloride	18	0.50	5.000	11.71	119	87.8	111	0.300	20	S
Bromide	2.2	0.10	2.500	0	89.1	83.3	107	0.390	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	74.5	115	0.717	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS-b**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145649** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Bromide	2.4	0.10	2.500	0	94.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151555** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151556** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Sulfate	9.8	0.50	10.00	0	98.0	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.5	90	110			

Sample ID **1209065-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.34	104	84.6	122			
Nitrate+Nitrite as N	5.8	0.20	3.500	2.072	107	88.6	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1209065-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5323** RunNo: **5323**

Prep Date: Analysis Date: **9/5/2012** SeqNo: **151559** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	41	0.50	10.00	30.34	105	84.6	122	0.241	20	
Nitrate+Nitrite as N	5.8	0.20	3.500	2.072	107	88.6	110	0.218	20	

Sample ID **1209077-005AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5323** RunNo: **5323**

Prep Date: Analysis Date: **9/5/2012** SeqNo: **151574** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	108	87.8	111			
Nitrate+Nitrite as N	6.4	0.20	3.500	2.865	102	88.6	110			

Sample ID **1209077-005AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5323** RunNo: **5323**

Prep Date: Analysis Date: **9/5/2012** SeqNo: **151575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	107	87.8	111	0.305	20	
Nitrate+Nitrite as N	6.5	0.20	3.500	2.865	103	88.6	110	0.477	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3489**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID **LCS-3489**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.2	74	157			
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID **LCSD-3489**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.5	74	157	5.19	23	
Surr: DNOP	0.52		0.5000		104	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		96.1	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.41	0.050	0.5000	0	82.3	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147892** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		96.7	80	120			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147893** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1208C71-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147898** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.83		0.8248		101	80	120			

Sample ID **1208C71-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147909** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.86		0.8248		104	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148266** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.6	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		84.3	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.5	70	130			
Surr: Toluene-d8	8.5		10.00		84.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148267** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	8.2		10.00		82.5	70	130			

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150166** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
'anone	ND	10								
bon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148675** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.6	70	130			
Surr: 4-Bromofluorobenzene	8.4		10.00		84.3	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.5	70	130			
Surr: Toluene-d8	8.5		10.00		84.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148676** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.6	70	130			
Toluene	19	1.0	20.00	0	96.9	80	120			
Chlorobenzene	19	1.0	20.00	0	94.8	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	93.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148676** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		96.3	70	130			
Surr: Toluene-d8	8.2		10.00		82.5	70	130			

Sample ID **1208a02-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148677** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.0	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	19	1.0	20.00	0	96.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.6	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	90.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.4	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.1	70	130			
Surr: Dibromofluoromethane	8.1		10.00		81.3	70	130			
rr: Toluene-d8	8.4		10.00		84.3	70	130			

Sample ID **1208a02-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5213**	RunNo: **5213**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148678** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128	0.921	16.7	
Toluene	19	1.0	20.00	0	93.9	70	130	10.4	18.7	
Chlorobenzene	18	1.0	20.00	0	91.4	70	130	5.54	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.3	70	130	5.61	16.7	
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130	2.46	17.5	
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		86.4	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		91.5	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		84.1	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
orofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b33-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150105** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **1208b33-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150106** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7	
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5	
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0	
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
nochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150143** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Sample ID **1208b42-003a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b42-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			

Sample ID **1208b42-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150145** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7	
Toluene	19	1.0	20.00	0	93.1	70	130	11.3	18.7	
Chlorobenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0	
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0	

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150173** Units: **µg/L**

ılyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c45-009a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150177** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
mophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**	
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B35**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
rr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208B35

Received by/date: CM 08/24/12

Logged By: Anne Thorne — 8/24/2012 3:40:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/27/2012 — Anne Thorne

Reviewed By: MG 08/27/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208835	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
8/23/12	0740	GW	SMW-2	11		-001	X	X	X
8/24/12	1040	GW	SMW-4	11		-002	X	X	X
8/24/12	1130	W	Field Blank	3		-003	X		
8/24/12	—	W	Trip Blank	3Z		-004	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				8/24/12	1540

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 25, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B41

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B41**
Date Reported: **9/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 6:50:00 AM
Lab ID: 1208B41-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.35	0.10		mg/L	1	8/27/2012 6:21:15 PM
Chloride	29	10		mg/L	20	8/27/2012 6:33:40 PM
Bromide	0.11	0.10		mg/L	1	8/27/2012 6:21:15 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 6:21:15 PM
Sulfate	740	10		mg/L	20	8/27/2012 6:33:40 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	9/5/2012 11:12:15 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.011	0.0020		mg/L	1	9/12/2012 9:54:24 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 9:54:24 PM
Calcium	240	5.0		mg/L	5	9/12/2012 9:58:13 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 9:54:24 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 9:54:24 PM
Iron	0.042	0.020		mg/L	1	9/12/2012 9:54:24 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 9:54:24 PM
Magnesium	50	1.0		mg/L	1	9/12/2012 9:54:24 PM
Manganese	ND	0.0020		mg/L	1	9/12/2012 9:54:24 PM
Potassium	1.3	1.0		mg/L	1	9/12/2012 9:54:24 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 9:54:24 PM
Sodium	59	1.0		mg/L	1	9/12/2012 9:54:24 PM
Zinc	0.030	0.010		mg/L	1	9/12/2012 9:54:24 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.011	0.0020		mg/L	1	9/11/2012 12:21:12 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:21:12 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:21:12 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 12:21:12 PM
Iron	0.24	0.020		mg/L	1	9/11/2012 12:21:12 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:21:12 PM
Manganese	ND	0.0020		mg/L	1	9/11/2012 12:21:12 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:21:12 PM
Zinc	0.027	0.010		mg/L	1	9/11/2012 12:21:12 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0034	0.0010		mg/L	1	9/11/2012 12:52:12 PM
Selenium	0.0012	0.0010		mg/L	1	9/11/2012 12:52:12 PM
Uranium	0.0015	0.0010		mg/L	1	9/11/2012 12:52:12 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0040	0.0025		mg/L	2.5	9/6/2012 6:47:27 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:47:27 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 2:18:55 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B41-001 **Matrix:** AQUEOUS

Client Sample ID: PW-3
Collection Date: 8/24/2012 6:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:21:33 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Aniline	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Anthracene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 6:22:07 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Carbazole	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Chrysene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 6:22:07 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 6:22:07 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 6:22:07 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 6:22:07 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 6:50:00 AM
Lab ID: 1208B41-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Fluorene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Isophorone	ND	10		µg/L	1	8/28/2012 6:22:07 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 6:22:07 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 6:22:07 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 6:22:07 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 6:22:07 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 6:22:07 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Phenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Pyrene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Pyridine	ND	10		µg/L	1	8/28/2012 6:22:07 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 6:22:07 PM
Surr: 2,4,6-Tribromophenol	82.2	44.2-126		%REC	1	8/28/2012 6:22:07 PM
Surr: 2-Fluorobiphenyl	68.5	37-114		%REC	1	8/28/2012 6:22:07 PM
Surr: 2-Fluorophenol	43.7	23.4-98		%REC	1	8/28/2012 6:22:07 PM
Surr: 4-Terphenyl-d14	64.7	41.3-116		%REC	1	8/28/2012 6:22:07 PM
Surr: Nitrobenzene-d5	72.3	39.5-118		%REC	1	8/28/2012 6:22:07 PM
Surr: Phenol-d5	40.6	20.9-95.9		%REC	1	8/28/2012 6:22:07 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B41-001 **Matrix:** AQUEOUS

Client Sample ID: PW-3
Collection Date: 8/24/2012 6:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:29:34 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:29:34 AM
Acetone	ND	10		µg/L	1	9/1/2012 2:29:34 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 2:29:34 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 2:29:34 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 2:29:34 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 2:29:34 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 2:29:34 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: PW-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 6:50:00 AM
Lab ID: 1208B41-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 2:29:34 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 2:29:34 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 2:29:34 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 2:29:34 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 2:29:34 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 2:29:34 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130		%REC	1	9/1/2012 2:29:34 AM
Surr: 4-Bromofluorobenzene	87.0	70-130		%REC	1	9/1/2012 2:29:34 AM
Surr: Dibromofluoromethane	87.9	70-130		%REC	1	9/1/2012 2:29:34 AM
Surr: Toluene-d8	84.1	70-130		%REC	1	9/1/2012 2:29:34 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 11:30:00 AM
Lab ID: 1208B41-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:57:21 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:57:21 AM
Acetone	ND	10		µg/L	1	9/1/2012 2:57:21 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 2:57:21 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 2:57:21 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 2:57:21 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 2:57:21 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 2:57:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B41-002 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012 11:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 2:57:21 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 2:57:21 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 2:57:21 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 2:57:21 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 2:57:21 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 2:57:21 AM
Surr: 1,2-Dichloroethane-d4	83.3	70-130		%REC	1	9/1/2012 2:57:21 AM
Surr: 4-Bromofluorobenzene	84.4	70-130		%REC	1	9/1/2012 2:57:21 AM
Surr: Dibromofluoromethane	84.7	70-130		%REC	1	9/1/2012 2:57:21 AM
Surr: Toluene-d8	82.0	70-130		%REC	1	9/1/2012 2:57:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

August 31, 2012

Date Received : August 28, 2012
Description :

ESC Sample # : L592137-01

Sample ID : 1208B41-001F PW-3

Site ID :

Collected By :
Collection Date : 08/24/12 06:50

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Cyanide	0.0085	0.0050	mg/l	4500CN-E	08/31/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
.
Reported: 08/31/12 15:12 Printed: 08/31/12 15:13

ESC
L·A·B S·C·I·E·N·C·E·S
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12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L592137

August 31, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
Cyanide	< .005	mg/l			WG610073	08/31/12 11:16

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Cyanide	mg/l	0	0	0	20	L592127-01	WG610073
Cyanide	mg/l	0	0	0	20	L592289-02	WG610073

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
Cyanide	mg/l	.1	0.102	102.	90-110	WG610073

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
Cyanide	mg/l	0.102	0.102	102.	90-110	0	20	WG610073

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Cyanide	mg/l	0.104	0	.2	52.0*	90-110	L592110-02	WG610073

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
Cyanide	mg/l	0.0972	0.104	48.6*	90-110	6.76	20	L592110-02	WG610073

Batch number /Run number / Sample number cross reference

WG610073: R2326054: L592137-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
p Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5457** RunNo: **5457**
p Date: Analysis Date: **9/12/2012** SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**
Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3526** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154030** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
·mium	0.50	0.0060	0.5000	0	99.0	85	115			
,per	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Lead	0.49	0.0050	0.5000	0	98.7	85	115			
Manganese	0.48	0.0020	0.5000	0	96.1	85	115			
Zinc	0.49	0.010	0.5000	0	98.1	85	115			

Sample ID **1208B33-003EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154057** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.57	0.0020	0.5000	0.04450	106	70	130			
Cadmium	0.54	0.0020	0.5000	0	107	70	130			
Chromium	0.51	0.0060	0.5000	0	103	70	130			
Copper	0.57	0.0060	0.5000	0	114	70	130			
Iron	0.66	0.020	0.5000	0.1192	108	70	130			
Lead	0.52	0.0050	0.5000	0	105	70	130			
Manganese	0.68	0.0020	0.5000	0.1610	104	70	130			
Zinc	0.53	0.010	0.5000	0.001530	106	70	130			

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5404**

Prep Date: **8/29/2012** Analysis Date: **9/10/2012** SeqNo: **154058** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.56	0.0020	0.5000	0.04450	104	70	130	1.69	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	1.27	20	
Chromium	0.51	0.0060	0.5000	0	101	70	130	1.19	20	
Copper	0.56	0.0060	0.5000	0	112	70	130	1.83	20	
Iron	0.65	0.020	0.5000	0.1192	105	70	130	2.21	20	
Lead	0.52	0.0050	0.5000	0	103	70	130	1.18	20	
Manganese	0.67	0.0020	0.5000	0.1610	101	70	130	2.31	20	
Zinc	0.53	0.010	0.5000	0.001530	105	70	130	1.02	20	

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3526** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.097	0.0050	0.1000	0	96.8	85	115			

Sample ID **1208B33-003EMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155112** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.065	0.0050	0.1000	0	64.6	70	130			S

Sample ID **1208B33-003EMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3526** RunNo: **5435**

Prep Date: **8/29/2012** Analysis Date: **9/11/2012** SeqNo: **155113** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.069	0.0050	0.1000	0	69.3	70	130	6.99	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **3526** RunNo: **5235**
Prep Date: **8/29/2012** Analysis Date: **8/30/2012** SeqNo: **148847** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154893** Units: **mg/L**

ılyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208932-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.005874	96.1	70	130			
Selenium	0.026	0.0010	0.02500	0.002644	93.5	70	130			

Sample ID **1208C61-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001791	98.5	70	130			
Selenium	0.027	0.0010	0.02500	0.002323	100	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**

Prep Date: Analysis Date: **9/11/2012** SeqNo: **154883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **PBW** Batch ID: **R5425** RunNo: **5425**

Prep Date: Analysis Date: **9/11/2012** SeqNo: **154885** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208C13-004AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**

Prep Date: Analysis Date: **9/11/2012** SeqNo: **155231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002387	103	70	130			
Selenium	0.026	0.0010	0.02500	0.0004619	104	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3526**	SampType: **MBLK**		TestCode: **200.8 ICPMS Metals:Total**		
Client ID: **PBW**	Batch ID: **3526**		RunNo: **5235**		
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**		SeqNo: **148880**	Units: **mg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3705**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3705**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	80	120			

Sample ID **1208A83-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	75	125			

Sample ID **1208A83-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
nt ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.517	20	

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B39-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.5	76.6	110			
Chloride	9.9	0.50	5.000	4.684	105	87.8	111			
Bromide	2.5	0.10	2.500	0.09394	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	97.0	74.5	115			
Sulfate	29	0.50	10.00	18.80	104	84.6	122			

Sample ID **1208B39-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.9	76.6	110	0.136	20	
Chloride	9.8	0.50	5.000	4.684	103	87.8	111	1.03	20	
Bromide	2.4	0.10	2.500	0.09394	92.3	83.3	107	2.02	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.4	74.5	115	1.64	20	
Sulfate	29	0.50	10.00	18.80	100	84.6	122	1.21	20	

Sample ID **1208B66-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	90.8	76.6	110			
Chloride	18	0.50	5.000	11.71	117	87.8	111			S
Bromide	2.2	0.10	2.500	0	89.4	83.3	107			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115			

Sample ID **1208B66-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	95.3	76.6	110	0.921	20	
Chloride	18	0.50	5.000	11.71	119	87.8	111	0.300	20	S
Bromide	2.2	0.10	2.500	0	89.1	83.3	107	0.390	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	74.5	115	0.717	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS-b**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145649** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Bromide	2.4	0.10	2.500	0	94.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

ıple ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151555** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151556** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.5	90	110			

Sample ID **1209065-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151558** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.8	0.20	3.500	2.072	107	88.6	110			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1209065-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151559**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	5.8	0.20	3.500	2.072	107	88.6	110	0.218	20	

Sample ID **1209077-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151574**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	6.4	0.20	3.500	2.865	102	88.6	110			

Sample ID **1209077-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**							
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151575**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	6.5	0.20	3.500	2.865	103	88.6	110	0.477	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

nple ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150166** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **LCSW**	Batch ID: **R5276**			RunNo: **5276**					
Prep Date:	Analysis Date: **8/31/2012**			SeqNo: **150102**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

Sample ID **1208b33-001a ms**	SampType: **MS**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **BatchQC**	Batch ID: **R5276**			RunNo: **5276**					
Prep Date:	Analysis Date: **8/31/2012**			SeqNo: **150105**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **1208b33-001a msd**	SampType: **MSD**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **BatchQC**	Batch ID: **R5276**			RunNo: **5276**					
Prep Date:	Analysis Date: **8/31/2012**			SeqNo: **150106**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7	
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5	
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0	
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0	

Sample ID **b3**	SampType: **MBLK**			TestCode: **EPA Method 8260B: VOLATILES**					
Client ID: **PBW**	Batch ID: **R5276**			RunNo: **5276**					
Prep Date:	Analysis Date: **8/31/2012**			SeqNo: **150141**		Units: **µg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
oethane	ND	2.0								
oroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150143** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b42-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			

Sample ID **1208b42-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150145** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7	
ene	19	1.0	20.00	0	93.1	70	130	11.3	18.7	
robenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0	
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0	

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

Sample ID **1208c45-009a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150177** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3505**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
mophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3505**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	100		200.0		50.6	44.2	126			
Surr: 2-Fluorobiphenyl	40		100.0		40.2	37	114			
Surr: 2-Fluorophenol	75		200.0		37.6	23.4	98			
Surr: 4-Terphenyl-d14	48		100.0		47.9	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		45.2	39.5	118			
Surr: Phenol-d5	65		200.0		32.4	20.9	95.9			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B41**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3505**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	59.7	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	68.5	35.5	108			
2-Chlorophenol	110	10	200.0	0	56.0	29.8	106			
1,4-Dichlorobenzene	44	10	100.0	0	44.5	32.6	91.5			
2,4-Dinitrotoluene	75	10	100.0	0	74.6	44.7	112			
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.1	38.5	105			
4-Nitrophenol	100	10	200.0	0	49.9	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	64.4	20.2	93			
Phenol	82	10	200.0	0	41.2	23	66.1			
Pyrene	59	10	100.0	0	59.2	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	51.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		83.6	44.2	126			
Surr: 2-Fluorobiphenyl	59		100.0		58.7	37	114			
Surr: 2-Fluorophenol	100		200.0		51.2	23.4	98			
Surr: 4-Terphenyl-d14	68		100.0		68.3	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	86		200.0		43.1	20.9	95.9			

Sample ID **lcsd-3505**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	59	10	100.0	0	58.5	38.2	99.4	2.03	20	
4-Chloro-3-methylphenol	140	10	200.0	0	68.1	35.5	108	0.512	20	
2-Chlorophenol	120	10	200.0	0	58.1	29.8	106	3.61	20	
1,4-Dichlorobenzene	45	10	100.0	0	44.7	32.6	91.5	0.583	20	
2,4-Dinitrotoluene	74	10	100.0	0	73.7	44.7	112	1.21	20	
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.0	38.5	105	0.154	20	
4-Nitrophenol	94	10	200.0	0	47.0	11.6	73.1	5.86	20	
Pentachlorophenol	130	20	200.0	0	63.8	20.2	93	0.968	20	
Phenol	82	10	200.0	0	41.1	23	66.1	0.170	20	
Pyrene	64	10	100.0	0	64.4	40.1	101	8.28	20	
1,2,4-Trichlorobenzene	57	10	100.0	0	57.2	37.7	99.1	10.3	20	
Surr: 2,4,6-Tribromophenol	170		200.0		86.3	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	63		100.0		63.0	37	114	0	0	
Surr: 2-Fluorophenol	97		200.0		48.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	71		100.0		71.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		69.6	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1208B41**

Received by/date: 08/24/12

Logged By: **Anne Thorne** 8/24/2012 3:40:00 PM

Completed By: **Anne Thorne** 8/27/2012

Reviewed By: 08/27/12

Chain of Custody

1.	Were seals intact?	Yes ✓	No	Not Present
2.	Is Chain of Custody complete?	Yes ✓	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA
5.	Was an attempt made to cool the samples?	Yes ✓	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
7.	Sample(s) in proper container(s)?	Yes ✓	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✓	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
10.	Was preservative added to bottles?	Yes	No ✓	NA
11.	VOA vials have zero headspace?	Yes ✓	No	No VOA Vials
12.	Were any sample containers received broken?	Yes	No ✓	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	
14.	Are matrices correctly identified on Chain of Custody?	Yes ✓	No	
15.	Is it clear what analyses were requested?	Yes ✓	No	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	

# of preserved bottles checked for pH: 3 1

(<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208B41	Analysis Request: WQCC Metals (Total and Dissolved)	Cyanide	Nitrates	Air Bubbles (Y or N)
8/24/12	0650	GW	PW-3	9		-001	X	X	X	
8/24/12	1130	W	Field Blank	3		-002	X			
8/24/12	—	W	~~Trip Blank~~	3		-003	X			
			No Trip Blank AT 08/27/12							

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	08/24/12	1540

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 25, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B42

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B42**
Date Reported: **9/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-001 **Matrix:** AQUEOUS

Client Sample ID: MW-1
Collection Date: 8/24/2012 10:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 8:24:13 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 8:24:13 AM
Surr: DNOP	138	79.5-166		%REC	1	8/28/2012 8:24:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 10:32:20 PM
Surr: BFB	102	69.8-119		%REC	1	8/30/2012 10:32:20 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.67	0.10		mg/L	1	8/27/2012 10:49:29 PM
Chloride	47	10		mg/L	20	8/27/2012 11:01:54 PM
Bromide	ND	0.10		mg/L	1	8/27/2012 10:49:29 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 10:49:29 PM
Sulfate	140	10		mg/L	20	8/27/2012 11:01:54 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 9:50:06 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.012	0.0020		mg/L	1	9/13/2012 11:45:03 AM
Cadmium	ND	0.0020		mg/L	1	9/13/2012 11:45:03 AM
Calcium	1.6	1.0		mg/L	1	9/13/2012 11:45:03 AM
Chromium	ND	0.0060		mg/L	1	9/13/2012 11:45:03 AM
Copper	ND	0.0060		mg/L	1	9/13/2012 11:45:03 AM
Iron	ND	0.020		mg/L	1	9/13/2012 11:45:03 AM
Lead	ND	0.0050		mg/L	1	9/13/2012 11:45:03 AM
Magnesium	ND	1.0		mg/L	1	9/13/2012 11:45:03 AM
Manganese	ND	0.0020		mg/L	1	9/13/2012 11:45:03 AM
Potassium	ND	1.0		mg/L	1	9/13/2012 11:45:03 AM
Silver	ND	0.0050		mg/L	1	9/13/2012 11:45:03 AM
Sodium	260	5.0		mg/L	5	9/13/2012 11:49:00 AM
Zinc	ND	0.010		mg/L	1	9/13/2012 11:45:03 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.014	0.0020		mg/L	1	9/11/2012 12:26:29 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:26:29 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:26:29 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 12:26:29 PM
Iron	0.078	0.020		mg/L	1	9/11/2012 12:26:29 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:26:29 PM
Manganese	0.0071	0.0020		mg/L	1	9/11/2012 12:26:29 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:26:29 PM
Zinc	ND	0.010		mg/L	1	9/11/2012 12:26:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0013	0.0010		mg/L	1	9/11/2012 1:04:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:30:00 AM
Lab ID: 1208B42-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 1:04:03 PM
Uranium	0.011	0.0010		mg/L	1	9/11/2012 1:04:03 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:23:08 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:23:08 PM
Uranium	0.011	0.0025		mg/L	2.5	9/13/2012 1:58:18 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:23:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Aniline	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Anthracene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 6:52:13 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Carbazole	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Chrysene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 6:52:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:30:00 AM
Lab ID: 1208B42-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 6:52:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 6:52:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 6:52:13 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Fluorene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Isophorone	ND	10		µg/L	1	8/28/2012 6:52:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 6:52:13 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 6:52:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 6:52:13 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 6:52:13 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 6:52:13 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Phenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Pyrene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Pyridine	ND	10		µg/L	1	8/28/2012 6:52:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 6:52:13 PM
Surr: 2,4,6-Tribromophenol	82.0	44.2-126		%REC	1	8/28/2012 6:52:13 PM
Surr: 2-Fluorobiphenyl	61.3	37-114		%REC	1	8/28/2012 6:52:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-001 **Matrix:** AQUEOUS

Client Sample ID: MW-1
Collection Date: 8/24/2012 10:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	46.0	23.4-98		%REC	1	8/28/2012 6:52:13 PM
Surr: 4-Terphenyl-d14	69.0	41.3-116		%REC	1	8/28/2012 6:52:13 PM
Surr: Nitrobenzene-d5	62.5	39.5-118		%REC	1	8/28/2012 6:52:13 PM
Surr: Phenol-d5	41.0	20.9-95.9		%REC	1	8/28/2012 6:52:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 3:24:51 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 3:24:51 AM
Acetone	ND	10		µg/L	1	9/1/2012 3:24:51 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 3:24:51 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 3:24:51 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 3:24:51 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 3:24:51 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:30:00 AM
Lab ID: 1208B42-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 3:24:51 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 3:24:51 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 3:24:51 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 3:24:51 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 3:24:51 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 3:24:51 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 3:24:51 AM
Surr: 1,2-Dichloroethane-d4	83.6	70-130		%REC	1	9/1/2012 3:24:51 AM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	1	9/1/2012 3:24:51 AM
Surr: Dibromofluoromethane	89.2	70-130		%REC	1	9/1/2012 3:24:51 AM
Surr: Toluene-d8	83.7	70-130		%REC	1	9/1/2012 3:24:51 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:50:00 AM
Lab ID: 1208B42-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 8:45:57 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 8:45:57 AM
Surr: DNOP	137	79.5-166		%REC	1	8/28/2012 8:45:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 11:02:34 PM
Surr: BFB	90.6	69.8-119		%REC	1	8/30/2012 11:02:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.67	0.10		mg/L	1	8/27/2012 11:39:07 PM
Chloride	49	10		mg/L	20	8/27/2012 11:51:32 PM
Bromide	ND	0.10		mg/L	1	8/27/2012 11:39:07 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 11:39:07 PM
Sulfate	150	10		mg/L	20	8/27/2012 11:51:32 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 10:02:31 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.018	0.0020		mg/L	1	9/13/2012 11:54:14 AM
Cadmium	ND	0.0020		mg/L	1	9/13/2012 11:54:14 AM
Calcium	1.4	1.0		mg/L	1	9/13/2012 11:54:14 AM
Chromium	ND	0.0060		mg/L	1	9/13/2012 11:54:14 AM
Copper	ND	0.0060		mg/L	1	9/13/2012 11:54:14 AM
Iron	ND	0.020		mg/L	1	9/13/2012 11:54:14 AM
Lead	ND	0.0050		mg/L	1	9/13/2012 11:54:14 AM
Magnesium	ND	1.0		mg/L	1	9/13/2012 11:54:14 AM
Manganese	0.0030	0.0020		mg/L	1	9/13/2012 11:54:14 AM
Potassium	ND	1.0		mg/L	1	9/13/2012 11:54:14 AM
Silver	ND	0.0050		mg/L	1	9/13/2012 11:54:14 AM
Sodium	270	5.0		mg/L	5	9/13/2012 12:10:15 PM
Zinc	0.019	0.010		mg/L	1	9/13/2012 11:54:14 AM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.021	0.0020		mg/L	1	9/11/2012 12:30:07 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:30:07 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:30:07 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 12:30:07 PM
Iron	0.022	0.020		mg/L	1	9/11/2012 12:30:07 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:30:07 PM
Manganese	0.0072	0.0020		mg/L	1	9/11/2012 12:30:07 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:30:07 PM
Zinc	ND	0.010		mg/L	1	9/11/2012 12:30:07 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/11/2012 1:07:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:50:00 AM
Lab ID: 1208B42-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 1:07:59 PM
Uranium	0.0090	0.0010		mg/L	1	9/11/2012 1:07:59 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:25:00 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:25:00 PM
Uranium	0.0097	0.0025		mg/L	2.5	9/13/2012 2:00:11 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:25:05 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Aniline	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Anthracene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 7:22:18 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Carbazole	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Chrysene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 7:22:18 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-002 **Matrix:** AQUEOUS

Client Sample ID: MW-2
Collection Date: 8/24/2012 10:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 7:22:18 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 7:22:18 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 7:22:18 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Fluorene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Isophorone	ND	10		µg/L	1	8/28/2012 7:22:18 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 7:22:18 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 7:22:18 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 7:22:18 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 7:22:18 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 7:22:18 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Phenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Pyrene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Pyridine	ND	10		µg/L	1	8/28/2012 7:22:18 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 7:22:18 PM
Surr: 2,4,6-Tribromophenol	77.8	44.2-126		%REC	1	8/28/2012 7:22:18 PM
Surr: 2-Fluorobiphenyl	64.9	37-114		%REC	1	8/28/2012 7:22:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 10:50:00 AM
Lab ID: 1208B42-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	46.5	23.4-98		%REC	1	8/28/2012 7:22:18 PM
Surr: 4-Terphenyl-d14	62.1	41.3-116		%REC	1	8/28/2012 7:22:18 PM
Surr: Nitrobenzene-d5	74.8	39.5-118		%REC	1	8/28/2012 7:22:18 PM
Surr: Phenol-d5	43.2	20.9-95.9		%REC	1	8/28/2012 7:22:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 3:52:29 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 3:52:29 AM
Acetone	ND	10		µg/L	1	9/1/2012 3:52:29 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 3:52:29 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 3:52:29 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 3:52:29 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 3:52:29 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-002 **Matrix:** AQUEOUS

Client Sample ID: MW-2
Collection Date: 8/24/2012 10:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 3:52:29 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 3:52:29 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 3:52:29 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 3:52:29 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 3:52:29 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 3:52:29 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 3:52:29 AM
Surr: 1,2-Dichloroethane-d4	82.2	70-130		%REC	1	9/1/2012 3:52:29 AM
Surr: 4-Bromofluorobenzene	89.5	70-130		%REC	1	9/1/2012 3:52:29 AM
Surr: Dibromofluoromethane	81.4	70-130		%REC	1	9/1/2012 3:52:29 AM
Surr: Toluene-d8	83.8	70-130		%REC	1	9/1/2012 3:52:29 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:30:00 PM
Lab ID: 1208B42-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 9:07:30 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 9:07:30 AM
Surr: DNOP	139	79.5-166		%REC	1	8/28/2012 9:07:30 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 11:32:48 PM
Surr: BFB	100	69.8-119		%REC	1	8/30/2012 11:32:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.29	0.10		mg/L	1	8/28/2012 12:03:57 AM
Chloride	16	10		mg/L	20	8/28/2012 12:16:22 AM
Bromide	0.11	0.10		mg/L	1	8/28/2012 12:03:57 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 12:03:57 AM
Sulfate	140	10		mg/L	20	8/28/2012 12:16:22 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 10:52:11 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.019	0.0020		mg/L	1	9/13/2012 12:13:51 PM
Cadmium	ND	0.0020		mg/L	1	9/13/2012 12:13:51 PM
Calcium	1.8	1.0		mg/L	1	9/13/2012 12:13:51 PM
Chromium	ND	0.0060		mg/L	1	9/13/2012 12:13:51 PM
Copper	ND	0.0060		mg/L	1	9/13/2012 12:13:51 PM
Iron	ND	0.020		mg/L	1	9/13/2012 12:13:51 PM
Lead	ND	0.0050		mg/L	1	9/13/2012 12:13:51 PM
Magnesium	ND	1.0		mg/L	1	9/13/2012 12:13:51 PM
Manganese	0.0031	0.0020		mg/L	1	9/13/2012 12:13:51 PM
Potassium	ND	1.0		mg/L	1	9/13/2012 12:13:51 PM
Silver	ND	0.0050		mg/L	1	9/13/2012 12:13:51 PM
Sodium	290	5.0		mg/L	5	9/13/2012 12:17:50 PM
Zinc	0.033	0.010		mg/L	1	9/13/2012 12:13:51 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.020	0.0020		mg/L	1	9/11/2012 12:33:48 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:33:48 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:33:48 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 12:33:48 PM
Iron	ND	0.020		mg/L	1	9/11/2012 12:33:48 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:33:48 PM
Manganese	0.0034	0.0020		mg/L	1	9/11/2012 12:33:48 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:33:48 PM
Zinc	ND	0.010		mg/L	1	9/11/2012 12:33:48 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/11/2012 1:11:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:30:00 PM
Lab ID: 1208B42-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 1:11:55 PM
Uranium	0.016	0.0010		mg/L	1	9/11/2012 1:11:55 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:30:39 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:30:39 PM
Uranium	0.018	0.0025		mg/L	2.5	9/13/2012 2:05:50 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:26:50 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Aniline	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Anthracene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 7:52:14 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Carbazole	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Chrysene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 7:52:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:30:00 PM
Lab ID: 1208B42-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 7:52:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 7:52:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 7:52:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Fluorene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Isophorone	ND	10		µg/L	1	8/28/2012 7:52:14 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 7:52:14 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 7:52:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 7:52:14 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 7:52:14 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 7:52:14 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Phenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Pyrene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Pyridine	ND	10		µg/L	1	8/28/2012 7:52:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 7:52:14 PM
Surr: 2,4,6-Tribromophenol	75.1	44.2-126		%REC	1	8/28/2012 7:52:14 PM
Surr: 2-Fluorobiphenyl	61.3	37-114		%REC	1	8/28/2012 7:52:14 PM

Qualifiers:
- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:30:00 PM
Lab ID: 1208B42-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	45.5	23.4-98		%REC	1	8/28/2012 7:52:14 PM
Surr: 4-Terphenyl-d14	58.1	41.3-116		%REC	1	8/28/2012 7:52:14 PM
Surr: Nitrobenzene-d5	66.8	39.5-118		%REC	1	8/28/2012 7:52:14 PM
Surr: Phenol-d5	42.0	20.9-95.9		%REC	1	8/28/2012 7:52:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 4:20:16 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 4:20:16 AM
Acetone	ND	10		µg/L	1	9/1/2012 4:20:16 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 4:20:16 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 4:20:16 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 4:20:16 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 4:20:16 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-4
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 8:30:00 PM
Lab ID: 1208B42-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 4:20:16 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 4:20:16 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 4:20:16 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 4:20:16 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 4:20:16 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 4:20:16 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 4:20:16 AM
Surr: 1,2-Dichloroethane-d4	82.8	70-130		%REC	1	9/1/2012 4:20:16 AM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	1	9/1/2012 4:20:16 AM
Surr: Dibromofluoromethane	81.3	70-130		%REC	1	9/1/2012 4:20:16 AM
Surr: Toluene-d8	83.4	70-130		%REC	1	9/1/2012 4:20:16 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1208B42**
Date Reported: **9/25/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-004 **Matrix:** AQUEOUS

Client Sample ID: MW-5
Collection Date: 8/23/2012 8:05:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 9:29:12 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 9:29:12 AM
Surr: DNOP	138	79.5-166		%REC	1	8/28/2012 9:29:12 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/31/2012 12:02:55 AM
Surr: BFB	103	69.8-119		%REC	1	8/31/2012 12:02:55 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.67	0.10		mg/L	1	8/28/2012 12:28:47 AM
Chloride	55	10		mg/L	20	8/28/2012 12:41:12 AM
Bromide	ND	0.10		mg/L	1	8/28/2012 12:28:47 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/28/2012 12:28:47 AM
Sulfate	160	10		mg/L	20	8/28/2012 12:41:12 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 11:04:36 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.016	0.0020		mg/L	1	9/13/2012 12:21:32 PM
Cadmium	ND	0.0020		mg/L	1	9/13/2012 12:21:32 PM
Calcium	1.4	1.0		mg/L	1	9/13/2012 12:21:32 PM
Chromium	ND	0.0060		mg/L	1	9/13/2012 12:21:32 PM
Copper	ND	0.0060		mg/L	1	9/13/2012 12:21:32 PM
Iron	ND	0.020		mg/L	1	9/13/2012 12:21:32 PM
Lead	ND	0.0050		mg/L	1	9/13/2012 12:21:32 PM
Magnesium	ND	1.0		mg/L	1	9/13/2012 12:21:32 PM
Manganese	0.0029	0.0020		mg/L	1	9/13/2012 12:21:32 PM
Potassium	ND	1.0		mg/L	1	9/13/2012 12:21:32 PM
Silver	ND	0.0050		mg/L	1	9/13/2012 12:21:32 PM
Sodium	270	5.0		mg/L	5	9/13/2012 12:27:09 PM
Zinc	ND	0.010		mg/L	1	9/13/2012 12:21:32 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.026	0.0020		mg/L	1	9/11/2012 12:37:30 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:37:30 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:37:30 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 12:37:30 PM
Iron	ND	0.020		mg/L	1	9/11/2012 12:37:30 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:37:30 PM
Manganese	0.012	0.0020		mg/L	1	9/11/2012 12:37:30 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:37:30 PM
Zinc	ND	0.010		mg/L	1	9/11/2012 12:37:30 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/11/2012 1:15:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 8:05:00 AM
Lab ID: 1208B42-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 1:15:51 PM
Uranium	0.0091	0.0010		mg/L	1	9/11/2012 1:15:51 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:32:31 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:32:31 PM
Uranium	0.0095	0.0025		mg/L	2.5	9/13/2012 2:07:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:32:11 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Aniline	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Anthracene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 8:22:09 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Carbazole	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Chrysene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 8:22:09 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-004 **Matrix:** AQUEOUS

Client Sample ID: MW-5
Collection Date: 8/23/2012 8:05:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 8:22:09 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 8:22:09 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 8:22:09 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Fluorene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Isophorone	ND	10		µg/L	1	8/28/2012 8:22:09 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 8:22:09 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 8:22:09 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 8:22:09 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 8:22:09 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 8:22:09 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Phenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Pyrene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Pyridine	ND	10		µg/L	1	8/28/2012 8:22:09 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 8:22:09 PM
Surr: 2,4,6-Tribromophenol	81.6	44.2-126		%REC	1	8/28/2012 8:22:09 PM
Surr: 2-Fluorobiphenyl	66.0	37-114		%REC	1	8/28/2012 8:22:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 8:05:00 AM
Lab ID: 1208B42-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	41.7	23.4-98		%REC	1	8/28/2012 8:22:09 PM
Surr: 4-Terphenyl-d14	65.4	41.3-116		%REC	1	8/28/2012 8:22:09 PM
Surr: Nitrobenzene-d5	63.6	39.5-118		%REC	1	8/28/2012 8:22:09 PM
Surr: Phenol-d5	38.4	20.9-95.9		%REC	1	8/28/2012 8:22:09 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 5:43:23 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 5:43:23 AM
Acetone	ND	10		µg/L	1	9/1/2012 5:43:23 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 5:43:23 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 5:43:23 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 5:43:23 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 5:43:23 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-004 **Matrix:** AQUEOUS

Client Sample ID: MW-5
Collection Date: 8/23/2012 8:05:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 5:43:23 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 5:43:23 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 5:43:23 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 5:43:23 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 5:43:23 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 5:43:23 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 5:43:23 AM
Surr: 1,2-Dichloroethane-d4	84.4	70-130		%REC	1	9/1/2012 5:43:23 AM
Surr: 4-Bromofluorobenzene	89.2	70-130		%REC	1	9/1/2012 5:43:23 AM
Surr: Dibromofluoromethane	90.0	70-130		%REC	1	9/1/2012 5:43:23 AM
Surr: Toluene-d8	82.8	70-130		%REC	1	9/1/2012 5:43:23 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 11:30:00 AM
Lab ID: 1208B42-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 6:10:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 6:10:59 AM
Acetone	ND	10		µg/L	1	9/1/2012 6:10:59 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 6:10:59 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 6:10:59 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 6:10:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 6:10:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 6:10:59 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B42-005 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012 11:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 6:10:59 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 6:10:59 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 6:10:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 6:10:59 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 6:10:59 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 6:10:59 AM
Surr: 1,2-Dichloroethane-d4	85.7	70-130		%REC	1	9/1/2012 6:10:59 AM
Surr: 4-Bromofluorobenzene	84.2	70-130		%REC	1	9/1/2012 6:10:59 AM
Surr: Dibromofluoromethane	88.3	70-130		%REC	1	9/1/2012 6:10:59 AM
Surr: Toluene-d8	85.5	70-130		%REC	1	9/1/2012 6:10:59 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157472** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157473** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.8	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Potassium	49	1.0	50.00	0	98.7	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Sodium	50	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.5	85	115			

Sample ID **1209244-001AMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Date: Analysis Date: **9/13/2012** SeqNo: **157480** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.49	0.0020	0.5000	0	98.4	70	130			

Sample ID **1209244-001AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157481** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.51	0.0020	0.5000	0	101	70	130	2.75	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C13-006AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.01006	89.5	70	130			
Cadmium	0.47	0.0020	0.5000	0	94.8	70	130			
Chromium	0.44	0.0060	0.5000	0	87.1	70	130			
Copper	0.47	0.0060	0.5000	0	93.1	70	130			
Iron	0.45	0.020	0.5000	0.002770	89.7	70	130			
Magnesium	72	1.0	50.00	23.53	97.2	70	130			
Manganese	0.46	0.0020	0.5000	0.01938	89.1	70	130			
Potassium	50	1.0	50.00	1.500	97.0	70	130			
Silver	0.095	0.0050	0.1000	0	94.8	70	130			
Sodium	61	1.0	50.00	10.91	99.6	70	130			
Zinc	0.54	0.010	0.5000	0.1251	82.3	70	130			

Sample ID **1208C13-006AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.01006	96.8	70	130	7.72	20	
Cadmium	0.50	0.0020	0.5000	0	100	70	130	5.84	20	
Chromium	0.46	0.0060	0.5000	0	92.3	70	130	5.78	20	
Copper	0.50	0.0060	0.5000	0	101	70	130	7.90	20	
Iron	0.47	0.020	0.5000	0.002770	94.4	70	130	5.07	20	
Magnesium	73	1.0	50.00	23.53	99.3	70	130	1.49	20	
Manganese	0.50	0.0020	0.5000	0.01938	96.0	70	130	7.15	20	
Potassium	51	1.0	50.00	1.500	99.6	70	130	2.62	20	
Silver	0.10	0.0050	0.1000	0	103	70	130	8.54	20	
Sodium	62	1.0	50.00	10.91	102	70	130	1.97	20	
Zinc	0.56	0.010	0.5000	0.1251	87.0	70	130	4.25	20	

Sample ID **1208C13-006AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157516** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	340	5.0	250.0	91.96	99.6	70	130			

Sample ID **1208C13-006AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157517** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	91.96	112	70	130	8.36	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157572** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.3	85	115			
Cadmium	0.50	0.0020	0.5000	0.0004200	100	85	115			
Calcium	48	1.0	50.00	0.02685	95.5	85	115			
Chromium	0.48	0.0060	0.5000	0	95.2	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.47	0.020	0.5000	0	93.2	85	115			
Lead	0.49	0.0050	0.5000	0	97.5	85	115			
Magnesium	51	1.0	50.00	0.02779	103	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	52	1.0	50.00	0.04813	104	85	115			

Sample ID **1208C82-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5512**	RunNo: **5512**
Prep Date:	Analysis Date: **9/13/2012**	SeqNo: **157592** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0.01033	95.1	70	130			
Manganese	0.57	0.0020	0.5000	0.08803	96.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C82-001CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157593** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.01033	92.9	70	130	2.34	20	
Manganese	0.56	0.0020	0.5000	0.08803	93.7	70	130	2.16	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **PBW** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **LCSW** Batch ID: **R5512** RunNo: **5512**

Prep Date: Analysis Date: **9/13/2012** SeqNo: **157634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.0	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	98.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Lead	0.49	0.0050	0.5000	0	98.8	85	115			
Magnesium	51	1.0	50.00	0.02196	102	85	115			
Manganese	0.49	0.0020	0.5000	0	97.4	85	115			
Potassium	49	1.0	50.00	0	98.7	85	115			
Silver	0.098	0.0050	0.1000	0	97.5	85	115			
Sodium	50	1.0	50.00	0	101	85	115			
Zinc	0.49	0.010	0.5000	0	97.5	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3584** RunNo: **5311**

Prep Date: **9/4/2012** Analysis Date: **9/5/2012** SeqNo: **151199** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3584** RunNo: **5311**

Prep Date: **9/4/2012** Analysis Date: **9/5/2012** SeqNo: **151200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **MB-3584** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155086** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3584** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155087** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.4	85	115			

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.47	0.0060	0.5000	0	93.5	70	130			
Copper	0.56	0.0060	0.5000	0	111	70	130			
Lead	0.48	0.0050	0.5000	0.003250	94.7	70	130			
Silver	0.024	0.0050	0.1000	0	24.1	70	130			S
Zinc	0.46	0.010	0.5000	0.001840	91.9	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155141** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.1	70	130	1.07	20	
Chromium	0.46	0.0060	0.5000	0	92.4	70	130	1.20	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.121	20	
Lead	0.48	0.0050	0.5000	0.003250	94.4	70	130	0.332	20	
Silver	0.025	0.0050	0.1000	0	25.1	70	130	3.78	20	S
Zinc	0.45	0.010	0.5000	0.001840	90.3	70	130	1.70	20	

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155164** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.6	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155165** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.1	70	130	0.155	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208932-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.005874	96.1	70	130			
Selenium	0.026	0.0010	0.02500	0.002644	93.5	70	130			

Sample ID **1208C61-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001791	98.5	70	130			
Selenium	0.027	0.0010	0.02500	0.002323	100	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5508**
Prep Date: **9/4/2012**	Analysis Date: **9/13/2012**	SeqNo: **157391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154885** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208C13-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002387	103	70	130			
Selenium	0.026	0.0010	0.02500	0.0004619	104	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	MB-3584	SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW	Batch ID:	3584		RunNo:	5392				
Prep Date:	9/4/2012	Analysis Date:	9/6/2012		SeqNo:	153679	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	MB-3584	SampType:	MBLK		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	PBW	Batch ID:	3584		RunNo:	5508				
Prep Date:	9/4/2012	Analysis Date:	9/13/2012		SeqNo:	157424	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3705**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3705**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	80	120			

Sample ID **1208A83-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	75	125			

Sample ID **1208A83-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.517	20	

Sample ID **MB-3706**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3706**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156174** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3706**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3706**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156175** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.7	80	120			

Sample ID **1208C13-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3706**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156178** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C13-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3706**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156179** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0053	0.00020	0.005000	0	105	75	125	3.04	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID **1208B32-001CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID **1208B32-001CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID **1208B37-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20	
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID **1208B33-006CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID **1208B33-006CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20	
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3489**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID **LCS-3489**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.2	74	157			
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID **LCSD-3489**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145464** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	4.2	1.0	5.000	0	84.5	74	157	5.19	23	
Surr: DNOP	0.52		0.5000		104	79.5	166	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C49-001ADUP** SampType: **DUP** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **R5237** RunNo: **5237**

Prep Date: Analysis Date: **8/30/2012** SeqNo: **149000** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20000	500						13.0	21	
Surr: BFB	270000		200000		133	43.1	185	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148996** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.8	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **148997** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.40	0.050	0.5000	0	80.3	75.9	119			
Surr: BFB	19		20.00		96.5	69.8	119			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **149013** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		102	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **149014** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	26		20.00		131	55	140			

Sample ID **1208C96-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **149016** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		95.7	55	140			

Sample ID **1208C96-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5237**	RunNo: **5237**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **149017** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	22		20.00		111	55	140	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

nple ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150166** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

fiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
'-Trichlorobenzene	ND	1.0								
-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

Sample ID **1208b33-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150105** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **1208b33-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150106** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7	
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5	
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0	
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0	

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
oethane	ND	2.0								
oroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

ifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150143** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b42-003a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **MW-4** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			

Sample ID **1208b42-003a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **MW-4** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150145** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7	
Toluene	19	1.0	20.00	0	93.1	70	130	11.3	18.7	
ɔbenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0	
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0	

Sample ID **b7** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208B42**

Hall Environmental Analysis Laboratory, Inc.

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**							
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

Sample ID **1208c45-009a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**							
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150177**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3505**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3505**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3505**	RunNo: **5155**
Prep Date: **8/28/2012**	Analysis Date: **8/28/2012**	SeqNo: **146455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	100		200.0		50.6	44.2	126			
Surr: 2-Fluorobiphenyl	40		100.0		40.2	37	114			
Surr: 2-Fluorophenol	75		200.0		37.6	23.4	98			
Surr: 4-Terphenyl-d14	48		100.0		47.9	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		45.2	39.5	118			
Surr: Phenol-d5	65		200.0		32.4	20.9	95.9			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B42**

25-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3505** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **3505** RunNo: **5155**

Prep Date: **8/28/2012** Analysis Date: **8/28/2012** SeqNo: **146457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	59.7	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	68.5	35.5	108			
2-Chlorophenol	110	10	200.0	0	56.0	29.8	106			
1,4-Dichlorobenzene	44	10	100.0	0	44.5	32.6	91.5			
2,4-Dinitrotoluene	75	10	100.0	0	74.6	44.7	112			
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.1	38.5	105			
4-Nitrophenol	100	10	200.0	0	49.9	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	64.4	20.2	93			
Phenol	82	10	200.0	0	41.2	23	66.1			
Pyrene	59	10	100.0	0	59.2	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	51.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		83.6	44.2	126			
Surr: 2-Fluorobiphenyl	59		100.0		58.7	37	114			
Surr: 2-Fluorophenol	100		200.0		51.2	23.4	98			
Surr: 4-Terphenyl-d14	68		100.0		68.3	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	86		200.0		43.1	20.9	95.9			

Sample ID **lcsd-3505** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **3505** RunNo: **5155**

Prep Date: **8/28/2012** Analysis Date: **8/28/2012** SeqNo: **146459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	59	10	100.0	0	58.5	38.2	99.4	2.03	20	
4-Chloro-3-methylphenol	140	10	200.0	0	68.1	35.5	108	0.512	20	
2-Chlorophenol	120	10	200.0	0	58.1	29.8	106	3.61	20	
1,4-Dichlorobenzene	45	10	100.0	0	44.7	32.6	91.5	0.583	20	
2,4-Dinitrotoluene	74	10	100.0	0	73.7	44.7	112	1.21	20	
N-Nitrosodi-n-propylamine	65	10	100.0	0	65.0	38.5	105	0.154	20	
4-Nitrophenol	94	10	200.0	0	47.0	11.6	73.1	5.86	20	
Pentachlorophenol	130	20	200.0	0	63.8	20.2	93	0.968	20	
Phenol	82	10	200.0	0	41.1	23	66.1	0.170	20	
Pyrene	64	10	100.0	0	64.4	40.1	101	8.28	20	
1,2,4-Trichlorobenzene	57	10	100.0	0	57.2	37.7	99.1	10.3	20	
Surr: 2,4,6-Tribromophenol	170		200.0		86.3	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	63		100.0		63.0	37	114	0	0	
Surr: 2-Fluorophenol	97		200.0		48.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	71		100.0		71.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		69.6	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208B42

Received by/date: 08/24/12

Logged By: Anne Thorne — 8/24/2012 3:40:00 PM — Anne Thorne

Completed By: Anne Thorne — 8/27/2012 — Anne Thorne

Reviewed By: MG — 08/27/12

Chain of Custody

1. Were seals intact? — Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 12 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: We[illegible]n Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208B42	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
8/24/12	1030	GW	MW-1	11		-001	X	X X X X	
8/24/12	1050	GW	MW-2	11		-002	X	X X X X	
8/24/12	2030	GW	MW-4	11		-003	X	X X X X	
8/23/12	0845	GW	MW-5	11		-004	X	X X X X	
8/24/12	1130	W	Field Blank	3		-005	X		
8/24/12	—	W	~~Trip Blank~~	~~3~~			~~X~~		

no Trip Blank AS 08/27/12

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	Date: 08/24/12	Time: 1540

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 26, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208988

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208988**
Date Reported: **9/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 2:55:00 PM
Lab ID: 1208988-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 2:20:19 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 2:20:19 PM
Surr: DNOP	134	79.5-166		%REC	1	8/23/2012 2:20:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/23/2012 6:12:59 PM
Surr: BFB	107	69.8-119		%REC	1	8/23/2012 6:12:59 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.54	0.50		mg/L	5	8/25/2012 12:50:38 AM
Chloride	96	10		mg/L	20	8/23/2012 12:41:30 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/23/2012 12:29:05 AM
Bromide	1.8	0.50		mg/L	5	8/23/2012 12:29:05 AM
Nitrogen, Nitrate (As N)	2.6	0.50		mg/L	5	8/23/2012 12:29:05 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/23/2012 12:29:05 AM
Sulfate	52	2.5		mg/L	5	8/23/2012 12:29:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.12	0.0020		mg/L	1	9/11/2012 3:09:31 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 3:09:31 PM
Calcium	73	1.0		mg/L	1	9/10/2012 6:29:22 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 3:09:31 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 3:09:31 PM
Iron	ND	0.020		mg/L	1	9/10/2012 6:29:22 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 3:09:31 PM
Magnesium	13	1.0		mg/L	1	9/10/2012 6:29:22 PM
Manganese	0.011	0.0020		mg/L	1	9/11/2012 3:09:31 PM
Potassium	ND	1.0		mg/L	1	9/10/2012 6:29:22 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 3:09:31 PM
Sodium	350	5.0		mg/L	5	9/10/2012 6:34:42 PM
Zinc	0.017	0.010		mg/L	1	9/11/2012 3:09:31 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.13	0.0020		mg/L	1	9/5/2012 9:34:06 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 9:34:06 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 9:34:06 AM
Copper	ND	0.0060		mg/L	1	9/5/2012 9:34:06 AM
Iron	0.066	0.020		mg/L	1	9/5/2012 9:34:06 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 9:34:06 AM
Manganese	0.018	0.0020		mg/L	1	9/5/2012 9:34:06 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 9:34:06 AM
Zinc	ND	0.010		mg/L	1	9/5/2012 9:34:06 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 8/21/2012 2:55:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0021	0.0010		mg/L	1	9/6/2012 1:18:12 PM
Selenium	0.0043	0.0010		mg/L	1	9/6/2012 1:18:12 PM
Uranium	0.011	0.0010		mg/L	1	9/6/2012 1:18:12 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 5:30:42 PM
Selenium	0.0043	0.0025		mg/L	2.5	9/6/2012 5:30:42 PM
Uranium	0.0094	0.0025		mg/L	2.5	9/13/2012 1:11:29 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 12:47:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Acenaphthylene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Aniline	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Anthracene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Azobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benz(a)anthracene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Benzoic acid	ND	20		µg/L	1	8/28/2012 11:51:29 PM
Benzyl alcohol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Carbazole	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Chloroaniline	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Chlorophenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Chrysene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Dibenzofuran	ND	10		µg/L	1	8/28/2012 11:51:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 8/21/2012 2:55:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Diethyl phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Dimethyl phthalate	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/28/2012 11:51:29 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/28/2012 11:51:29 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/28/2012 11:51:29 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Fluoranthene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Fluorene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Hexachlorobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Hexachloroethane	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Isophorone	ND	10		µg/L	1	8/28/2012 11:51:29 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Methylphenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
3+4-Methylphenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/28/2012 11:51:29 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/28/2012 11:51:29 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Naphthalene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Nitroaniline	ND	10		µg/L	1	8/28/2012 11:51:29 PM
3-Nitroaniline	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Nitroaniline	ND	20		µg/L	1	8/28/2012 11:51:29 PM
Nitrobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2-Nitrophenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
4-Nitrophenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Pentachlorophenol	ND	20		µg/L	1	8/28/2012 11:51:29 PM
Phenanthrene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Phenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Pyrene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Pyridine	ND	10		µg/L	1	8/28/2012 11:51:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/28/2012 11:51:29 PM
Surr: 2,4,6-Tribromophenol	103	44.2-126		%REC	1	8/28/2012 11:51:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-1
Collection Date: 8/21/2012 2:55:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	87.2	37-114		%REC	1	8/28/2012 11:51:29 PM
Surr: 2-Fluorophenol	72.2	23.4-98		%REC	1	8/28/2012 11:51:29 PM
Surr: 4-Terphenyl-d14	83.9	41.3-116		%REC	1	8/28/2012 11:51:29 PM
Surr: Nitrobenzene-d5	92.7	39.5-118		%REC	1	8/28/2012 11:51:29 PM
Surr: Phenol-d5	52.0	20.9-95.9		%REC	1	8/28/2012 11:51:29 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 3:51:25 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 3:51:25 PM
Acetone	ND	10		µg/L	1	8/24/2012 3:51:25 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 3:51:25 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 3:51:25 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 3:51:25 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 3:51:25 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 2:55:00 PM
Lab ID: 1208988-001 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 3:51:25 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 3:51:25 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 3:51:25 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 3:51:25 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 3:51:25 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 3:51:25 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 3:51:25 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	8/24/2012 3:51:25 PM
Surr: 4-Bromofluorobenzene	96.4	70-130		%REC	1	8/24/2012 3:51:25 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	8/24/2012 3:51:25 PM
Surr: Toluene-d8	100	70-130		%REC	1	8/24/2012 3:51:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-2
Collection Date: 8/21/2012 4:20:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 2:42:06 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 2:42:06 PM
Surr: DNOP	133	79.5-166		%REC	1	8/23/2012 2:42:06 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.4	0.50		mg/L	10	8/23/2012 6:43:11 PM
Surr: BFB	111	69.8-119		%REC	10	8/23/2012 6:43:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.6	0.50		mg/L	5	8/24/2012 7:14:58 AM
Chloride	370	10		mg/L	20	8/23/2012 1:18:43 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/23/2012 1:06:19 AM
Bromide	1.4	0.50		mg/L	5	8/23/2012 1:06:19 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/23/2012 1:06:19 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/23/2012 1:06:19 AM
Sulfate	11	2.5		mg/L	5	8/23/2012 1:06:19 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	2.7	0.010	*	mg/L	5	9/11/2012 3:21:13 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 3:16:34 PM
Calcium	110	5.0		mg/L	5	9/11/2012 3:21:13 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 3:16:34 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 3:16:34 PM
Iron	1.9	0.10	*	mg/L	5	9/11/2012 3:21:13 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 3:16:34 PM
Magnesium	21	1.0		mg/L	1	9/11/2012 3:16:34 PM
Manganese	1.6	0.010	*	mg/L	5	9/11/2012 3:21:13 PM
Potassium	ND	1.0		mg/L	1	9/11/2012 3:16:34 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 3:16:34 PM
Sodium	380	5.0		mg/L	5	9/11/2012 3:21:13 PM
Zinc	0.016	0.010		mg/L	1	9/11/2012 3:16:34 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	1.7	0.010		mg/L	5	9/5/2012 9:45:03 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 9:41:52 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 9:41:52 AM
Copper	ND	0.0060		mg/L	1	9/5/2012 9:41:52 AM
Iron	3.1	0.10	*	mg/L	5	9/5/2012 9:45:03 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 9:41:52 AM
Manganese	1.7	0.010	*	mg/L	5	9/5/2012 9:45:03 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 9:41:52 AM
Zinc	ND	0.010		mg/L	1	9/5/2012 9:41:52 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 4:20:00 PM
Lab ID: 1208988-002
Matrix: AQUEOUS
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.014	0.0010	*	mg/L	1	9/6/2012 1:22:08 PM
Selenium	0.0037	0.0010		mg/L	1	9/6/2012 1:22:08 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 1:22:08 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0097	0.0025		mg/L	2.5	9/6/2012 5:32:34 PM
Selenium	0.0031	0.0025		mg/L	2.5	9/6/2012 5:32:34 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:13:21 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 12:48:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Aniline	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Anthracene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Azobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Benzoic acid	ND	20		µg/L	1	8/29/2012 12:21:27 AM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Carbazole	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Chrysene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 12:21:27 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-2
Collection Date: 8/21/2012 4:20:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 12:21:27 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 12:21:27 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 12:21:27 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Fluoranthene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Fluorene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Isophorone	ND	10		µg/L	1	8/29/2012 12:21:27 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 12:21:27 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 12:21:27 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Naphthalene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 12:21:27 AM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 12:21:27 AM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 12:21:27 AM
Phenanthrene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Phenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Pyrene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Pyridine	ND	10		µg/L	1	8/29/2012 12:21:27 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 12:21:27 AM
Surr: 2,4,6-Tribromophenol	75.0	44.2-126		%REC	1	8/29/2012 12:21:27 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 4:20:00 PM
Lab ID: 1208988-002
Matrix: AQUEOUS
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	60.4	37-114		%REC	1	8/29/2012 12:21:27 AM
Surr: 2-Fluorophenol	39.5	23.4-98		%REC	1	8/29/2012 12:21:27 AM
Surr: 4-Terphenyl-d14	60.2	41.3-116		%REC	1	8/29/2012 12:21:27 AM
Surr: Nitrobenzene-d5	55.0	39.5-118		%REC	1	8/29/2012 12:21:27 AM
Surr: Phenol-d5	33.3	20.9-95.9		%REC	1	8/29/2012 12:21:27 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	10	5.0		µg/L	5	8/24/2012 5:16:26 PM
Toluene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Ethylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Methyl tert-butyl ether (MTBE)	160	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Naphthalene	ND	10		µg/L	5	8/24/2012 5:16:26 PM
1-Methylnaphthalene	ND	20		µg/L	5	8/24/2012 5:16:26 PM
2-Methylnaphthalene	ND	20		µg/L	5	8/24/2012 5:16:26 PM
Acetone	ND	50		µg/L	5	8/24/2012 5:16:26 PM
Bromobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Bromodichloromethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Bromoform	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Bromomethane	ND	15		µg/L	5	8/24/2012 5:16:26 PM
2-Butanone	ND	50		µg/L	5	8/24/2012 5:16:26 PM
Carbon disulfide	ND	50		µg/L	5	8/24/2012 5:16:26 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Chlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Chloroethane	ND	10		µg/L	5	8/24/2012 5:16:26 PM
Chloroform	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Chloromethane	ND	15		µg/L	5	8/24/2012 5:16:26 PM
2-Chlorotoluene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
4-Chlorotoluene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
cis-1,2-DCE	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	8/24/2012 5:16:26 PM
Dibromochloromethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Dibromomethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-002 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-2
Collection Date: 8/21/2012 4:20:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
2,2-Dichloropropane	ND	10		µg/L	5	8/24/2012 5:16:26 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
2-Hexanone	ND	50		µg/L	5	8/24/2012 5:16:26 PM
Isopropylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	8/24/2012 5:16:26 PM
Methylene Chloride	ND	15		µg/L	5	8/24/2012 5:16:26 PM
n-Butylbenzene	ND	15		µg/L	5	8/24/2012 5:16:26 PM
n-Propylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
sec-Butylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Styrene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
tert-Butylbenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	8/24/2012 5:16:26 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
trans-1,2-DCE	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	8/24/2012 5:16:26 PM
Vinyl chloride	ND	5.0		µg/L	5	8/24/2012 5:16:26 PM
Xylenes, Total	ND	7.5		µg/L	5	8/24/2012 5:16:26 PM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	5	8/24/2012 5:16:26 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	5	8/24/2012 5:16:26 PM
Surr: Dibromofluoromethane	88.2	70-130		%REC	5	8/24/2012 5:16:26 PM
Surr: Toluene-d8	99.1	70-130		%REC	5	8/24/2012 5:16:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 3:45:00 PM
Lab ID: 1208988-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/23/2012 3:04:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 3:04:04 PM
Surr: DNOP	128	79.5-166		%REC	1	8/23/2012 3:04:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.10	0.050		mg/L	1	8/27/2012 5:39:11 PM
Surr: BFB	91.1	69.8-119		%REC	1	8/27/2012 5:39:11 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	2.0		mg/L	20	8/25/2012 1:03:03 AM
Chloride	250	10		mg/L	20	8/25/2012 1:03:03 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/23/2012 1:43:33 AM
Bromide	1.2	0.10		mg/L	1	8/23/2012 1:43:33 AM
Nitrogen, Nitrate (As N)	0.31	0.10		mg/L	1	8/23/2012 1:43:33 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/23/2012 1:43:33 AM
Sulfate	43	10		mg/L	20	8/23/2012 1:55:57 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.17	0.0020		mg/L	1	9/11/2012 3:36:13 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 3:36:13 PM
Calcium	77	1.0		mg/L	1	9/11/2012 3:36:13 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 3:36:13 PM
Copper	ND	0.0060		mg/L	1	9/11/2012 3:36:13 PM
Iron	ND	0.020		mg/L	1	9/11/2012 3:36:13 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 3:36:13 PM
Magnesium	13	1.0		mg/L	1	9/11/2012 3:36:13 PM
Manganese	0.39	0.0020	*	mg/L	1	9/11/2012 3:36:13 PM
Potassium	1.8	1.0		mg/L	1	9/11/2012 3:36:13 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 3:36:13 PM
Sodium	430	5.0		mg/L	5	9/10/2012 6:48:11 PM
Zinc	0.022	0.010		mg/L	1	9/11/2012 3:36:13 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.30	0.0020		mg/L	1	9/5/2012 9:48:53 AM
Cadmium	ND	0.0020		mg/L	1	9/5/2012 9:48:53 AM
Chromium	ND	0.0060		mg/L	1	9/5/2012 9:48:53 AM
Copper	0.0070	0.0060		mg/L	1	9/5/2012 9:48:53 AM
Iron	0.32	0.020	*	mg/L	1	9/5/2012 9:48:53 AM
Lead	ND	0.0050		mg/L	1	9/5/2012 9:48:53 AM
Manganese	0.81	0.0020	*	mg/L	1	9/5/2012 9:48:53 AM
Silver	ND	0.0050		mg/L	1	9/5/2012 9:48:53 AM
Zinc	0.014	0.010		mg/L	1	9/5/2012 9:48:53 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-003 **Matrix:** AQUEOUS

Client Sample ID: KA-3
Collection Date: 8/21/2012 3:45:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0031	0.0010		mg/L	1	9/6/2012 1:26:04 PM
Selenium	0.0047	0.0010		mg/L	1	9/6/2012 1:26:04 PM
Uranium	0.013	0.0010		mg/L	1	9/6/2012 1:26:04 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0028	0.0025		mg/L	2.5	9/6/2012 5:34:26 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 5:34:26 PM
Uranium	0.0043	0.0025		mg/L	2.5	9/13/2012 1:15:14 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	9/11/2012 12:50:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Acenaphthylene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Aniline	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Anthracene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Azobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benz(a)anthracene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Benzoic acid	ND	20		µg/L	1	8/29/2012 12:51:22 AM
Benzyl alcohol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Carbazole	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Chloroaniline	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Chlorophenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Chrysene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Dibenzofuran	ND	10		µg/L	1	8/29/2012 12:51:22 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 3:45:00 PM
Lab ID: 1208988-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,3-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Diethyl phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Dimethyl phthalate	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/29/2012 12:51:22 AM
2,4-Dimethylphenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/29/2012 12:51:22 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/29/2012 12:51:22 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Fluoranthene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Fluorene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Hexachlorobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Hexachloroethane	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Isophorone	ND	10		µg/L	1	8/29/2012 12:51:22 AM
1-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Methylnaphthalene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Methylphenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
3+4-Methylphenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/29/2012 12:51:22 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/29/2012 12:51:22 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Naphthalene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Nitroaniline	ND	10		µg/L	1	8/29/2012 12:51:22 AM
3-Nitroaniline	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Nitroaniline	ND	20		µg/L	1	8/29/2012 12:51:22 AM
Nitrobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2-Nitrophenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
4-Nitrophenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Pentachlorophenol	ND	20		µg/L	1	8/29/2012 12:51:22 AM
Phenanthrene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Phenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Pyrene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Pyridine	ND	10		µg/L	1	8/29/2012 12:51:22 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/29/2012 12:51:22 AM
Surr: 2,4,6-Tribromophenol	99.8	44.2-126		%REC	1	8/29/2012 12:51:22 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-003 **Matrix:** AQUEOUS

Client Sample ID: KA-3
Collection Date: 8/21/2012 3:45:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorobiphenyl	87.1	37-114		%REC	1	8/29/2012 12:51:22 AM
Surr: 2-Fluorophenol	64.8	23.4-98		%REC	1	8/29/2012 12:51:22 AM
Surr: 4-Terphenyl-d14	80.6	41.3-116		%REC	1	8/29/2012 12:51:22 AM
Surr: Nitrobenzene-d5	91.0	39.5-118		%REC	1	8/29/2012 12:51:22 AM
Surr: Phenol-d5	50.4	20.9-95.9		%REC	1	8/29/2012 12:51:22 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Methyl tert-butyl ether (MTBE)	23	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 5:44:42 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 5:44:42 PM
Acetone	ND	10		µg/L	1	8/24/2012 5:44:42 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 5:44:42 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 5:44:42 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 5:44:42 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 5:44:42 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: KA-3
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 3:45:00 PM
Lab ID: 1208988-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 5:44:42 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 5:44:42 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 5:44:42 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 5:44:42 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 5:44:42 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 5:44:42 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 5:44:42 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	8/24/2012 5:44:42 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	8/24/2012 5:44:42 PM
Surr: Dibromofluoromethane	93.0	70-130		%REC	1	8/24/2012 5:44:42 PM
Surr: Toluene-d8	99.9	70-130		%REC	1	8/24/2012 5:44:42 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 4:30:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Toluene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Naphthalene	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 6:13:00 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/24/2012 6:13:00 PM
Acetone	ND	10		µg/L	1	8/24/2012 6:13:00 PM
Bromobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Bromoform	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Bromomethane	ND	3.0		µg/L	1	8/24/2012 6:13:00 PM
2-Butanone	ND	10		µg/L	1	8/24/2012 6:13:00 PM
Carbon disulfide	ND	10		µg/L	1	8/24/2012 6:13:00 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Chlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Chloroethane	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
Chloroform	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Chloromethane	ND	3.0		µg/L	1	8/24/2012 6:13:00 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Dibromomethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
2-Hexanone	ND	10		µg/L	1	8/24/2012 6:13:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208988-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 4:30:00 PM
Received Date: 8/22/2012 1:22:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/24/2012 6:13:00 PM
Methylene Chloride	ND	3.0		µg/L	1	8/24/2012 6:13:00 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/24/2012 6:13:00 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Styrene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/24/2012 6:13:00 PM
Vinyl chloride	ND	1.0		µg/L	1	8/24/2012 6:13:00 PM
Xylenes, Total	ND	1.5		µg/L	1	8/24/2012 6:13:00 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	8/24/2012 6:13:00 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	8/24/2012 6:13:00 PM
Surr: Dibromofluoromethane	83.7	70-130		%REC	1	8/24/2012 6:13:00 PM
Surr: Toluene-d8	98.2	70-130		%REC	1	8/24/2012 6:13:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154616** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154617** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0	101	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Magnesium	51	1.0	50.00	0	102	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Sodium	50	1.0	50.00	0	99.7	85	115			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.3	85	115			
Iron	0.49	0.020	0.5000	0	97.4	85	115			
Magnesium	50	1.0	50.00	0	101	85	115			
Potassium	48	1.0	50.00	0	96.2	85	115			
Sodium	49	1.0	50.00	0	98.3	85	115			

Sample ID **1208944-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154694** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	230	5.0	250.0	5.623	89.7	70	130			
Sodium	330	5.0	250.0	96.58	94.7	70	130			

Sample ID **1208944-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5414**	RunNo: **5414**
Prep Date:	Analysis Date: **9/10/2012**	SeqNo: **154695** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	230	5.0	250.0	5.623	88.3	70	130	1.51	20	
Sodium	330	5.0	250.0	96.58	91.5	70	130	2.47	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5435**	RunNo: **5435**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155088** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5435**	RunNo: **5435**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155088** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5435**	RunNo: **5435**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155089** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
ium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	54	1.0	50.00	0	108	85	115			
Chromium	0.50	0.0060	0.5000	0	99.5	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.49	0.020	0.5000	0	98.7	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Magnesium	56	1.0	50.00	0	112	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Potassium	54	1.0	50.00	0	108	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Sodium	56	1.0	50.00	0	112	85	115			
Zinc	0.49	0.010	0.5000	0	98.4	85	115			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3476**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3476**	RunNo: **5311**
Prep Date: **8/24/2012**	Analysis Date: **9/5/2012**	SeqNo: **151202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.52	0.0060	0.5000	0	103	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	101	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Silver	0.11	0.0050	0.1000	0	106	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157390** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

'fiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5350** RunNo: **5350**
Prep Date: Analysis Date: **9/6/2012** SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5392**
Prep Date: **8/24/2012**	Analysis Date: **9/6/2012**	SeqNo: **153678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **MB-3476**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3476**	RunNo: **5508**
Prep Date: **8/24/2012**	Analysis Date: **9/13/2012**	SeqNo: **157423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3670**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3670**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155009** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3670**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3670**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155010** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.5	80	120			

Sample ID **1208722-005GMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3670**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155012** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00005024	96.8	75	125			

mple ID **1208722-005GMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
ient ID: **BatchQC**	Batch ID: **3670**	RunNo: **5432**
Prep Date: **9/10/2012**	Analysis Date: **9/11/2012**	SeqNo: **155013** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00005024	97.6	75	125	0.862	20	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.1	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			
Bromide	2.4	0.10	2.500	0	95.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.1	90	110			
Sulfate	9.4	0.50	10.00	0	93.7	90	110			

Sample ID **1208944-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142963** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0.09490	89.1	83.3	107			

Sample ID **1208944-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142964** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0.09490	91.4	83.3	107	2.49	20	

Sample ID **1208997-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5046**	RunNo: **5046**
Prep Date:	Analysis Date: **8/22/2012**	SeqNo: **142985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	13.63	107	87.8	111			
Nitrogen, Nitrite (As N)	0.94	0.10	1.000	0	93.6	72.5	111			
Bromide	2.5	0.10	2.500	0	98.8	83.3	107			
Nitrogen, Nitrate (As N)	2.9	0.10	2.500	0.3941	102	90.4	113			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208997-001DMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5046** RunNo: **5046**
Prep Date: Analysis Date: **8/22/2012** SeqNo: **142986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	19	0.50	5.000	13.63	108	87.8	111	0.271	20	
Nitrogen, Nitrite (As N)	0.95	0.10	1.000	0	94.7	72.5	111	1.20	20	
Bromide	2.5	0.10	2.500	0	100	83.3	107	1.16	20	
Nitrogen, Nitrate (As N)	3.0	0.10	2.500	0.3941	103	90.4	113	0.618	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R5083** RunNo: **5083**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143987** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID **LCS-b** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R5083** RunNo: **5083**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ide	0.48	0.10	0.5000	0	95.8	90	110			

Sample ID **1208A33-004CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5083** RunNo: **5083**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143990** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.50	2.500	0	89.7	76.6	110			

Sample ID **1208A33-004CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R5083** RunNo: **5083**
Prep Date: Analysis Date: **8/23/2012** SeqNo: **143991** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.50	2.500	0	87.9	76.6	110	2.06	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R5107** RunNo: **5107**
Prep Date: Analysis Date: **8/24/2012** SeqNo: **144818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								

fiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5107**	RunNo: **5107**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.5	90	110			
Chloride	4.6	0.50	5.000	0	92.7	90	110			

Sample ID **1208A83-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5107**	RunNo: **5107**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144823** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.246	64.5	76.6	110			S
Chloride	9.4	0.50	5.000	4.464	97.9	87.8	111			

Sample ID **1208A83-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5107**	RunNo: **5107**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144824** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.246	63.4	76.6	110	0.342	20	S
Chloride	9.4	0.50	5.000	4.464	99.3	87.8	111	0.706	20	

Sample ID **1208A93-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5107**	RunNo: **5107**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.09428	79.8	76.6	110			

Sample ID **1208A93-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5107**	RunNo: **5107**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0.09428	80.5	76.6	110	0.728	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A18-001ADUP**	SampType: **DUP**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **R5086**	RunNo: **5086**							
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144171**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21000	500						3.09	21	
Surr: BFB	240000		200000		121	43.1	185	0	0	

Sample ID **1208A74-001ADUP**	SampType: **DUP**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**							
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146146**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2200	50						6.88	21	
Surr: BFB	68000		20000		342	43.1	185	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144168** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		90.1	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144169** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.3	75.9	119			
Surr: BFB	23		20.00		113	69.8	119			

Sample ID **1208988-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS-2**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144177** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
line Range Organics (GRO)	5.6	0.50	5.000	1.434	84.2	63.5	131			
urr: BFB	230		200.0		114	69.8	119			

Sample ID **1208988-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS-2**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144178** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	5.5	0.50	5.000	1.434	80.9	63.5	131	2.91	16.7	
Surr: BFB	240		200.0		119	69.8	119	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		111	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146143** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.9	75.9	119			
Surr: BFB	20		20.00		98.3	69.8	119			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208989-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0.2540	89.4	63.5	131			
Surr: BFB	190		200.0		97.3	69.8	119			

Sample ID **1208989-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.50	5.000	0.2540	89.8	63.5	131	0.422	16.7	
Surr: BFB	220		200.0		111	69.8	119	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A74-001ADUP**	SampType: **DUP**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146168** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	26		20.00		130	74.5	131	0	0	

fiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144182** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		94.1	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144183** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		94.0	55	140			

Sample ID **1208987-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144190** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	99		100.0		98.9	55	140			

Sample ID **1208987-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5086**	RunNo: **5086**
Prep Date:	Analysis Date: **8/23/2012**	SeqNo: **144191** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	110		100.0		105	55	140	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146165** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	24		20.00		118	55	140			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146166** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	25		20.00		124	55	140			

Sample ID **1208B76-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R5142**	RunNo: **5142**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146172** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	97		100.0		97.5	55	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	**1208B76-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 8021B: Volatiles**					
Client ID:	**BatchQC**	Batch ID: **R5142**		RunNo: **5142**					
Prep Date:		Analysis Date: **8/28/2012**		SeqNo: **146173**	Units: **%REC**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	120		100.0		124	55	140	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**	
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144786** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.0	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	90.9	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5105**	RunNo: **5105**
Prep Date:	Analysis Date: **8/24/2012**	SeqNo: **144788** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**	
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3477**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **3477**	RunNo: **5155**	
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146454**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	110		200.0		55.0	44.2	126			
Surr: 2-Fluorobiphenyl	43		100.0		43.1	37	114			
Surr: 2-Fluorophenol	78		200.0		38.9	23.4	98			
Surr: 4-Terphenyl-d14	47		100.0		46.6	41.3	116			
Surr: Nitrobenzene-d5	45		100.0		44.9	39.5	118			
Surr: Phenol-d5	62		200.0		31.0	20.9	95.9			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208988**

26-Sep-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3477**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146456** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	60	10	100.0	0	60.4	38.2	99.4			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	35.5	108			
2-Chlorophenol	120	10	200.0	0	58.5	29.8	106			
1,4-Dichlorobenzene	49	10	100.0	0	49.3	32.6	91.5			
2,4-Dinitrotoluene	67	10	100.0	0	67.2	44.7	112			
N-Nitrosodi-n-propylamine	72	10	100.0	0	71.5	38.5	105			
4-Nitrophenol	94	10	200.0	0	47.2	11.6	73.1			
Pentachlorophenol	130	20	200.0	0	63.4	20.2	93			
Phenol	94	10	200.0	0	47.1	23	66.1			
Pyrene	60	10	100.0	0	59.8	40.1	101			
1,2,4-Trichlorobenzene	52	10	100.0	0	52.3	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114			
Surr: 2-Fluorophenol	110		200.0		52.9	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.2	41.3	116			
Surr: Nitrobenzene-d5	61		100.0		60.5	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-3477**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3477**	RunNo: **5155**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146458** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	65	10	100.0	0	65.1	38.2	99.4	7.42	20	
4-Chloro-3-methylphenol	150	10	200.0	0	76.2	35.5	108	3.38	20	
2-Chlorophenol	120	10	200.0	0	61.2	29.8	106	4.43	20	
1,4-Dichlorobenzene	50	10	100.0	0	50.1	32.6	91.5	1.61	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.0	44.7	112	17.4	20	
N-Nitrosodi-n-propylamine	69	10	100.0	0	69.5	38.5	105	2.89	20	
4-Nitrophenol	110	10	200.0	0	55.7	11.6	73.1	16.4	20	
Pentachlorophenol	150	20	200.0	0	73.7	20.2	93	15.1	20	
Phenol	93	10	200.0	0	46.5	23	66.1	1.37	20	
Pyrene	65	10	100.0	0	65.1	40.1	101	8.43	20	
1,2,4-Trichlorobenzene	59	10	100.0	0	58.7	37.7	99.1	11.4	20	
Surr: 2,4,6-Tribromophenol	180		200.0		92.0	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		69.3	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		52.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	75		100.0		75.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	68		100.0		68.5	39.5	118	0	0	
Surr: Phenol-d5	92		200.0		46.2	20.9	95.9	0	0	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208988

Received by/date: AT 8/22/12

Logged By: **Anne Thorne** 8/22/2012 1:22:00 PM — Anne Thorne

Completed By: **Anne Thorne** 8/22/2012 — Anne Thorne

Reviewed By: IO 08/23/12

Chain of Custody

1. Were seals intact?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☑	No ☐	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 9 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208988	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)												Air Bubbles (Y or N)
8/21/12	1455	GW	NAPIS-1	11		-001	X	X	X	X	X									
8/21/12	1620	GW	NAPIS-2	11		-002	X	X	X	X	X									
			~~NAPIS-3~~				X	X	X	X	X									
8/21/12	1545	GW	KA-3	11		-003	X	X	X	X	X									
8/21/12	1630	W	Field Blank	3		-004	X													
8/21/12	—	W	~~Trip Blank~~	3	HCl 08/22/12	~~-005~~	X													

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/21/12	0830				
8/22/12	1322			08/22/12	1322

Remarks:
NO TB /HCl 08/22/12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 01, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B37

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B37**
Date Reported: **10/1/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:00:00 PM
Lab ID: 1208B37-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 5:52:54 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 5:52:54 AM
Surr: DNOP	134	79.5-166		%REC	1	8/28/2012 5:52:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 1:46:50 PM
Surr: BFB	95.6	69.8-119		%REC	1	8/30/2012 1:46:50 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.25	0.10		mg/L	1	8/27/2012 7:06:01 PM
Chloride	27	10		mg/L	20	8/27/2012 7:43:16 PM
Bromide	0.35	0.10		mg/L	1	8/27/2012 7:06:01 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 7:06:01 PM
Sulfate	150	10		mg/L	20	8/27/2012 7:43:16 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 12:06:40 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.022	0.0020		mg/L	1	9/12/2012 8:49:02 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:49:02 PM
Calcium	8.5	1.0		mg/L	1	9/12/2012 8:49:02 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:49:02 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:49:02 PM
Iron	ND	0.020		mg/L	1	9/12/2012 8:49:02 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:49:02 PM
Magnesium	1.3	1.0		mg/L	1	9/12/2012 8:49:02 PM
Manganese	0.011	0.0020		mg/L	1	9/12/2012 8:49:02 PM
Potassium	1.2	1.0		mg/L	1	9/12/2012 8:49:02 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:49:02 PM
Sodium	300	5.0		mg/L	5	9/12/2012 8:53:00 PM
Zinc	0.016	0.010		mg/L	1	9/12/2012 8:49:02 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.024	0.0020		mg/L	1	9/11/2012 11:40:17 AM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:40:17 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:40:17 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:40:17 AM
Iron	ND	0.020		mg/L	1	9/11/2012 11:40:17 AM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:40:17 AM
Manganese	0.010	0.0020		mg/L	1	9/11/2012 11:40:17 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:40:17 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:40:17 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/11/2012 12:28:36 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-001 **Matrix:** AQUEOUS

Client Sample ID: OW-13
Collection Date: 8/23/2012 12:00:00 PM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 12:28:36 PM
Uranium	0.016	0.0010		mg/L	1	9/11/2012 12:28:36 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:11:47 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:11:47 PM
Uranium	0.017	0.0025		mg/L	2.5	9/13/2012 1:47:06 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:07:13 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Methyl tert-butyl ether (MTBE)	9.2	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:35:13 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 7:35:13 PM
Acetone	ND	10		µg/L	1	8/31/2012 7:35:13 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 7:35:13 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 7:35:13 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 7:35:13 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 7:35:13 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-13
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:00:00 PM
Lab ID: 1208B37-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 7:35:13 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 7:35:13 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 7:35:13 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 7:35:13 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 7:35:13 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 7:35:13 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 7:35:13 PM
Surr: 1,2-Dichloroethane-d4	83.0	70-130		%REC	1	8/31/2012 7:35:13 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	8/31/2012 7:35:13 PM
Surr: Dibromofluoromethane	84.8	70-130		%REC	1	8/31/2012 7:35:13 PM
Surr: Toluene-d8	81.5	70-130		%REC	1	8/31/2012 7:35:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-002 **Matrix:** AQUEOUS

Client Sample ID: OW-14
Collection Date: 8/23/2012 12:15:00 PM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2.4	1.0		mg/L	1	8/28/2012 6:14:30 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 6:14:30 AM
Surr: DNOP	134	79.5-166		%REC	1	8/28/2012 6:14:30 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	15	0.50		mg/L	10	8/30/2012 1:33:13 AM
Surr: BFB	112	69.8-119		%REC	10	8/30/2012 1:33:13 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.50		mg/L	5	8/27/2012 7:55:41 PM
Chloride	410	25		mg/L	50	9/5/2012 8:43:21 PM
Bromide	2.7	0.50		mg/L	5	8/27/2012 7:55:41 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 7:55:41 PM
Sulfate	3.5	2.5		mg/L	5	8/27/2012 7:55:41 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 12:19:05 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	1.1	0.010		mg/L	5	9/12/2012 8:59:54 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 8:56:44 PM
Calcium	98	1.0		mg/L	1	9/12/2012 8:56:44 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 8:56:44 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 8:56:44 PM
Iron	4.4	0.10	*	mg/L	5	9/12/2012 8:59:54 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 8:56:44 PM
Magnesium	28	1.0		mg/L	1	9/12/2012 8:56:44 PM
Manganese	2.3	0.010	*	mg/L	5	9/12/2012 8:59:54 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 8:56:44 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 8:56:44 PM
Sodium	430	5.0		mg/L	5	9/12/2012 8:59:54 PM
Zinc	0.039	0.010		mg/L	1	9/12/2012 8:56:44 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	1.2	0.010		mg/L	5	9/11/2012 1:15:20 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:43:56 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:43:56 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:43:56 AM
Iron	4.2	0.10	*	mg/L	5	9/11/2012 1:15:20 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:43:56 AM
Manganese	2.3	0.010	*	mg/L	5	9/11/2012 1:15:20 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:43:56 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:43:56 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.010	0.0010	*	mg/L	1	9/11/2012 12:32:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-14
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:15:00 PM
Lab ID: 1208B37-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0067	0.0010		mg/L	1	9/11/2012 12:32:32 PM
Uranium	0.0091	0.0010		mg/L	1	9/11/2012 12:32:32 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.012	0.0025	*	mg/L	2.5	9/6/2012 6:13:47 PM
Selenium	0.0066	0.0025		mg/L	2.5	9/26/2012 11:04:23 AM
Uranium	0.0095	0.0025		mg/L	2.5	9/13/2012 1:48:58 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:09:00 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2100	50		µg/L	50	8/31/2012 8:02:48 PM
Toluene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Ethylbenzene	37	10		µg/L	10	8/31/2012 8:30:24 PM
Methyl tert-butyl ether (MTBE)	1600	10		µg/L	10	8/31/2012 8:30:24 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Naphthalene	ND	20		µg/L	10	8/31/2012 8:30:24 PM
1-Methylnaphthalene	ND	40		µg/L	10	8/31/2012 8:30:24 PM
2-Methylnaphthalene	ND	40		µg/L	10	8/31/2012 8:30:24 PM
Acetone	ND	100		µg/L	10	8/31/2012 8:30:24 PM
Bromobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Bromodichloromethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Bromoform	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Bromomethane	ND	30		µg/L	10	8/31/2012 8:30:24 PM
2-Butanone	ND	100		µg/L	10	8/31/2012 8:30:24 PM
Carbon disulfide	ND	100		µg/L	10	8/31/2012 8:30:24 PM
Carbon Tetrachloride	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Chlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Chloroethane	ND	20		µg/L	10	8/31/2012 8:30:24 PM
Chloroform	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Chloromethane	ND	30		µg/L	10	8/31/2012 8:30:24 PM
2-Chlorotoluene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
4-Chlorotoluene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
cis-1,2-DCE	ND	10		µg/L	10	8/31/2012 8:30:24 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	8/31/2012 8:30:24 PM
Dibromochloromethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Dibromomethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-002 **Matrix:** AQUEOUS

Client Sample ID: OW-14
Collection Date: 8/23/2012 12:15:00 PM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Dichlorodifluoromethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1-Dichloroethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1-Dichloroethene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2-Dichloropropane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,3-Dichloropropane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
2,2-Dichloropropane	ND	20		µg/L	10	8/31/2012 8:30:24 PM
1,1-Dichloropropene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Hexachlorobutadiene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
2-Hexanone	ND	100		µg/L	10	8/31/2012 8:30:24 PM
Isopropylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
4-Isopropyltoluene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	8/31/2012 8:30:24 PM
Methylene Chloride	ND	30		µg/L	10	8/31/2012 8:30:24 PM
n-Butylbenzene	ND	30		µg/L	10	8/31/2012 8:30:24 PM
n-Propylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
sec-Butylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Styrene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
tert-Butylbenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	8/31/2012 8:30:24 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	8/31/2012 8:30:24 PM
trans-1,2-DCE	ND	10		µg/L	10	8/31/2012 8:30:24 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Trichloroethene (TCE)	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Trichlorofluoromethane	ND	10		µg/L	10	8/31/2012 8:30:24 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	8/31/2012 8:30:24 PM
Vinyl chloride	ND	10		µg/L	10	8/31/2012 8:30:24 PM
Xylenes, Total	ND	15		µg/L	10	8/31/2012 8:30:24 PM
Surr: 1,2-Dichloroethane-d4	82.9	70-130		%REC	10	8/31/2012 8:30:24 PM
Surr: 4-Bromofluorobenzene	84.8	70-130		%REC	10	8/31/2012 8:30:24 PM
Surr: Dibromofluoromethane	88.3	70-130		%REC	10	8/31/2012 8:30:24 PM
Surr: Toluene-d8	82.5	70-130		%REC	10	8/31/2012 8:30:24 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:30:00 PM
Lab ID: 1208B37-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 6:36:08 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 6:36:08 AM
Surr: DNOP	138	79.5-166		%REC	1	8/28/2012 6:36:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.90	0.050		mg/L	1	8/30/2012 2:01:56 AM
Surr: BFB	97.9	69.8-119		%REC	1	8/30/2012 2:01:56 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.37	0.10		mg/L	1	8/27/2012 8:20:31 PM
Chloride	140	10		mg/L	20	8/27/2012 8:32:56 PM
Bromide	0.74	0.10		mg/L	1	8/27/2012 8:20:31 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 8:20:31 PM
Sulfate	83	10		mg/L	20	8/27/2012 8:32:56 PM
Nitrate+Nitrite as N	1.0	1.0		mg/L	5	8/28/2012 12:31:29 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.056	0.0020		mg/L	1	9/12/2012 9:22:10 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 9:22:10 PM
Calcium	50	1.0		mg/L	1	9/12/2012 9:22:10 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 9:22:10 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 9:22:10 PM
Iron	0.046	0.020		mg/L	1	9/12/2012 9:22:10 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 9:22:10 PM
Magnesium	12	1.0		mg/L	1	9/12/2012 9:22:10 PM
Manganese	0.24	0.0020	*	mg/L	1	9/12/2012 9:22:10 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 9:22:10 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 9:22:10 PM
Sodium	360	5.0		mg/L	5	9/12/2012 9:25:58 PM
Zinc	ND	0.010		mg/L	1	9/12/2012 9:22:10 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.058	0.0020		mg/L	1	9/11/2012 11:54:59 AM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:54:59 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:54:59 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:54:59 AM
Iron	0.16	0.020		mg/L	1	9/11/2012 11:54:59 AM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:54:59 AM
Manganese	0.25	0.0020	*	mg/L	1	9/11/2012 11:54:59 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:54:59 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:54:59 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0010	0.0010		mg/L	1	9/11/2012 12:36:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:30:00 PM
Lab ID: 1208B37-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0019	0.0010		mg/L	1	9/11/2012 12:36:28 PM
Uranium	0.053	0.0050	*	mg/L	5	9/11/2012 3:13:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:15:39 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:15:39 PM
Uranium	0.055	0.0025	*	mg/L	2.5	9/13/2012 1:50:50 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:10:48 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Methyl tert-butyl ether (MTBE)	1000	10		µg/L	10	9/4/2012 10:58:24 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 8:57:59 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 8:57:59 PM
Acetone	ND	10		µg/L	1	8/31/2012 8:57:59 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 8:57:59 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 8:57:59 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 8:57:59 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 8:57:59 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-29
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:30:00 PM
Lab ID: 1208B37-003
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 8:57:59 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 8:57:59 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 8:57:59 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 8:57:59 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 8:57:59 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 8:57:59 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 8:57:59 PM
Surr: 1,2-Dichloroethane-d4	83.0	70-130		%REC	1	8/31/2012 8:57:59 PM
Surr: 4-Bromofluorobenzene	88.7	70-130		%REC	1	8/31/2012 8:57:59 PM
Surr: Dibromofluoromethane	82.5	70-130		%REC	1	8/31/2012 8:57:59 PM
Surr: Toluene-d8	83.4	70-130		%REC	1	8/31/2012 8:57:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 11:20:00 AM
Lab ID: 1208B37-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 7:19:28 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 7:19:28 AM
Surr: DNOP	141	79.5-166		%REC	1	8/28/2012 7:19:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.8	0.050		mg/L	1	8/30/2012 2:30:35 AM
Surr: BFB	96.5	69.8-119		%REC	1	8/30/2012 2:30:35 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.31	0.10		mg/L	1	8/27/2012 9:10:10 PM
Chloride	140	10		mg/L	20	8/27/2012 9:22:35 PM
Bromide	0.35	0.10		mg/L	1	8/27/2012 9:10:10 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 9:10:10 PM
Sulfate	53	10		mg/L	20	8/27/2012 9:22:35 PM
Nitrate+Nitrite as N	1.5	1.0		mg/L	5	8/28/2012 1:21:09 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.074	0.0020		mg/L	1	9/12/2012 9:29:43 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 9:29:43 PM
Calcium	61	1.0		mg/L	1	9/12/2012 9:29:43 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 9:29:43 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 9:29:43 PM
Iron	ND	0.020		mg/L	1	9/12/2012 9:29:43 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 9:29:43 PM
Magnesium	14	1.0		mg/L	1	9/12/2012 9:29:43 PM
Manganese	0.015	0.0020		mg/L	1	9/12/2012 9:29:43 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 9:29:43 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 9:29:43 PM
Sodium	370	5.0		mg/L	5	9/12/2012 9:33:31 PM
Zinc	0.036	0.010		mg/L	1	9/12/2012 9:29:43 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.078	0.0020		mg/L	1	9/11/2012 11:58:41 AM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 11:58:41 AM
Chromium	ND	0.0060		mg/L	1	9/11/2012 11:58:41 AM
Copper	ND	0.0060		mg/L	1	9/11/2012 11:58:41 AM
Iron	0.058	0.020		mg/L	1	9/11/2012 11:58:41 AM
Lead	ND	0.0050		mg/L	1	9/11/2012 11:58:41 AM
Manganese	0.018	0.0020		mg/L	1	9/11/2012 11:58:41 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 11:58:41 AM
Zinc	ND	0.010		mg/L	1	9/11/2012 11:58:41 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0010	0.0010		mg/L	1	9/11/2012 12:40:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-30
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 11:20:00 AM
Lab ID: 1208B37-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0017	0.0010		mg/L	1	9/11/2012 12:40:24 PM
Uranium	0.052	0.0050	*	mg/L	5	9/11/2012 3:25:49 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:17:31 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:17:31 PM
Uranium	0.056	0.0025	*	mg/L	2.5	9/13/2012 1:52:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:12:36 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Toluene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Ethylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Methyl tert-butyl ether (MTBE)	2300	50		µg/L	50	9/4/2012 11:26:02 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Naphthalene	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 11:43:50 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/31/2012 11:43:50 PM
Acetone	ND	10		µg/L	1	8/31/2012 11:43:50 PM
Bromobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Bromodichloromethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Bromoform	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Bromomethane	ND	3.0		µg/L	1	8/31/2012 11:43:50 PM
2-Butanone	ND	10		µg/L	1	8/31/2012 11:43:50 PM
Carbon disulfide	ND	10		µg/L	1	8/31/2012 11:43:50 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Chlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Chloroethane	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
Chloroform	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Chloromethane	ND	3.0		µg/L	1	8/31/2012 11:43:50 PM
2-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
4-Chlorotoluene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
cis-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
Dibromochloromethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Dibromomethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-004 **Matrix:** AQUEOUS

Client Sample ID: OW-30
Collection Date: 8/23/2012 11:20:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
2-Hexanone	ND	10		µg/L	1	8/31/2012 11:43:50 PM
Isopropylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/31/2012 11:43:50 PM
Methylene Chloride	ND	3.0		µg/L	1	8/31/2012 11:43:50 PM
n-Butylbenzene	ND	3.0		µg/L	1	8/31/2012 11:43:50 PM
n-Propylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
sec-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Styrene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
tert-Butylbenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
trans-1,2-DCE	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/31/2012 11:43:50 PM
Vinyl chloride	ND	1.0		µg/L	1	8/31/2012 11:43:50 PM
Xylenes, Total	ND	1.5		µg/L	1	8/31/2012 11:43:50 PM
Surr: 1,2-Dichloroethane-d4	84.1	70-130		%REC	1	8/31/2012 11:43:50 PM
Surr: 4-Bromofluorobenzene	85.0	70-130		%REC	1	8/31/2012 11:43:50 PM
Surr: Dibromofluoromethane	86.6	70-130		%REC	1	8/31/2012 11:43:50 PM
Surr: Toluene-d8	82.5	70-130		%REC	1	8/31/2012 11:43:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 1:10:00 PM
Lab ID: 1208B37-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 7:40:57 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 7:40:57 AM
Surr: DNOP	142	79.5-166		%REC	1	8/28/2012 7:40:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 2:59:26 AM
Surr: BFB	96.2	69.8-119		%REC	1	8/30/2012 2:59:26 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.42	0.10		mg/L	1	8/27/2012 9:35:00 PM
Chloride	26	10		mg/L	20	8/27/2012 9:47:24 PM
Bromide	0.22	0.10		mg/L	1	8/27/2012 9:35:00 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 9:35:00 PM
Sulfate	140	10		mg/L	20	8/27/2012 9:47:24 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 1:33:34 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.040	0.0020		mg/L	1	9/12/2012 9:37:15 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 9:37:15 PM
Calcium	22	1.0		mg/L	1	9/12/2012 9:37:15 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 9:37:15 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 9:37:15 PM
Iron	ND	0.020		mg/L	1	9/12/2012 9:37:15 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 9:37:15 PM
Magnesium	3.7	1.0		mg/L	1	9/12/2012 9:37:15 PM
Manganese	0.051	0.0020	*	mg/L	1	9/12/2012 9:37:15 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 9:37:15 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 9:37:15 PM
Sodium	230	5.0		mg/L	5	9/12/2012 9:42:59 PM
Zinc	0.014	0.010		mg/L	1	9/12/2012 9:37:15 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.043	0.0020		mg/L	1	9/11/2012 12:13:54 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:13:54 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:13:54 PM
Copper	0.0086	0.0060		mg/L	1	9/11/2012 12:13:54 PM
Iron	0.071	0.020		mg/L	1	9/11/2012 12:13:54 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:13:54 PM
Manganese	0.058	0.0020	*	mg/L	1	9/11/2012 12:13:54 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:13:54 PM
Zinc	0.011	0.010		mg/L	1	9/11/2012 12:13:54 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0019	0.0010		mg/L	1	9/11/2012 12:44:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 1:10:00 PM
Lab ID: 1208B37-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 12:44:20 PM
Uranium	0.0077	0.0010		mg/L	1	9/11/2012 12:44:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:19:23 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:19:23 PM
Uranium	0.0080	0.0025		mg/L	2.5	9/13/2012 1:54:34 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:14:22 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Aniline	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Anthracene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 2:34:31 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Carbazole	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Chrysene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 2:34:31 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 1:10:00 PM
Lab ID: 1208B37-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 2:34:31 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 2:34:31 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 2:34:31 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Fluorene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Isophorone	ND	10		µg/L	1	8/31/2012 2:34:31 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 2:34:31 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 2:34:31 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Naphthalene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 2:34:31 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 2:34:31 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 2:34:31 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Phenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Pyrene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Pyridine	ND	10		µg/L	1	8/31/2012 2:34:31 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 2:34:31 PM
Surr: 2,4,6-Tribromophenol	76.3	44.2-126		%REC	1	8/31/2012 2:34:31 PM
Surr: 2-Fluorobiphenyl	57.7	37-114		%REC	1	8/31/2012 2:34:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 1:10:00 PM
Lab ID: 1208B37-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	42.9	23.4-98		%REC	1	8/31/2012 2:34:31 PM
Surr: 4-Terphenyl-d14	56.1	41.3-116		%REC	1	8/31/2012 2:34:31 PM
Surr: Nitrobenzene-d5	49.6	39.5-118		%REC	1	8/31/2012 2:34:31 PM
Surr: Phenol-d5	32.6	20.9-95.9		%REC	1	8/31/2012 2:34:31 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 12:39:01 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 12:39:01 AM
Acetone	ND	10		µg/L	1	9/1/2012 12:39:01 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 12:39:01 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 12:39:01 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 12:39:01 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 12:39:01 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-50
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 1:10:00 PM
Lab ID: 1208B37-005 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 12:39:01 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 12:39:01 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 12:39:01 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 12:39:01 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 12:39:01 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 12:39:01 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 12:39:01 AM
Surr: 1,2-Dichloroethane-d4	84.2	70-130		%REC	1	9/1/2012 12:39:01 AM
Surr: 4-Bromofluorobenzene	84.7	70-130		%REC	1	9/1/2012 12:39:01 AM
Surr: Dibromofluoromethane	88.1	70-130		%REC	1	9/1/2012 12:39:01 AM
Surr: Toluene-d8	82.9	70-130		%REC	1	9/1/2012 12:39:01 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IDC**
Conductivity	1100	0.010		µmhos/cm	1	8/28/2012 1:31:13 PM
SM4500-H+B: PH						Analyst: **IDC**
pH	8.13	1.68	H	pH units	1	8/28/2012 1:31:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:50:00 PM
Lab ID: 1208B37-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/28/2012 8:02:41 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/28/2012 8:02:41 AM
Surr: DNOP	140	79.5-166		%REC	1	8/28/2012 8:02:41 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2012 3:28:15 AM
Surr: BFB	95.6	69.8-119		%REC	1	8/30/2012 3:28:15 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.49	0.10		mg/L	1	8/27/2012 9:59:50 PM
Chloride	25	10		mg/L	20	8/27/2012 10:12:14 PM
Bromide	0.16	0.10		mg/L	1	8/27/2012 9:59:50 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/27/2012 9:59:50 PM
Sulfate	120	10		mg/L	20	8/27/2012 10:12:14 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/28/2012 1:45:59 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.022	0.0020		mg/L	1	9/12/2012 9:46:43 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 9:46:43 PM
Calcium	4.4	1.0		mg/L	1	9/12/2012 9:46:43 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 9:46:43 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 9:46:43 PM
Iron	ND	0.020		mg/L	1	9/12/2012 9:46:43 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 9:46:43 PM
Magnesium	ND	1.0		mg/L	1	9/12/2012 9:46:43 PM
Manganese	0.0054	0.0020		mg/L	1	9/12/2012 9:46:43 PM
Potassium	1.5	1.0		mg/L	1	9/12/2012 9:46:43 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 9:46:43 PM
Sodium	250	5.0		mg/L	5	9/12/2012 9:50:40 PM
Zinc	0.039	0.010		mg/L	1	9/12/2012 9:46:43 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.029	0.0020		mg/L	1	9/11/2012 12:17:34 PM
Cadmium	ND	0.0020		mg/L	1	9/11/2012 12:17:34 PM
Chromium	ND	0.0060		mg/L	1	9/11/2012 12:17:34 PM
Copper	0.014	0.0060		mg/L	1	9/11/2012 12:17:34 PM
Iron	0.30	0.020	*	mg/L	1	9/11/2012 12:17:34 PM
Lead	ND	0.0050		mg/L	1	9/11/2012 12:17:34 PM
Manganese	0.026	0.0020		mg/L	1	9/11/2012 12:17:34 PM
Silver	ND	0.0050		mg/L	1	9/11/2012 12:17:34 PM
Zinc	0.012	0.010		mg/L	1	9/11/2012 12:17:34 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0010		mg/L	1	9/11/2012 12:48:16 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:50:00 PM
Lab ID: 1208B37-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	ND	0.0010		mg/L	1	9/11/2012 12:48:16 PM
Uranium	0.0072	0.0010		mg/L	1	9/11/2012 12:48:16 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	9/6/2012 6:21:16 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:21:16 PM
Uranium	0.0076	0.0025		mg/L	2.5	9/13/2012 1:56:26 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:16:10 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Aniline	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Anthracene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 3:04:08 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Carbazole	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Chrysene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 3:04:08 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-006 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 8/23/2012 12:50:00 PM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 3:04:08 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 3:04:08 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 3:04:08 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Fluorene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Isophorone	ND	10		µg/L	1	8/31/2012 3:04:08 PM
1-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 3:04:08 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 3:04:08 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Naphthalene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 3:04:08 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 3:04:08 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 3:04:08 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Phenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Pyrene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Pyridine	ND	10		µg/L	1	8/31/2012 3:04:08 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 3:04:08 PM
Surr: 2,4,6-Tribromophenol	91.7	44.2-126		%REC	1	8/31/2012 3:04:08 PM
Surr: 2-Fluorobiphenyl	78.1	37-114		%REC	1	8/31/2012 3:04:08 PM

Qualifiers:

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E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-52
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 12:50:00 PM
Lab ID: 1208B37-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: 2-Fluorophenol	53.8	23.4-98		%REC	1	8/31/2012 3:04:08 PM
Surr: 4-Terphenyl-d14	78.0	41.3-116		%REC	1	8/31/2012 3:04:08 PM
Surr: Nitrobenzene-d5	80.1	39.5-118		%REC	1	8/31/2012 3:04:08 PM
Surr: Phenol-d5	43.2	20.9-95.9		%REC	1	8/31/2012 3:04:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 1:06:47 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 1:06:47 AM
Acetone	ND	10		µg/L	1	9/1/2012 1:06:47 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 1:06:47 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 1:06:47 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 1:06:47 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 1:06:47 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-006 **Matrix:** AQUEOUS

Client Sample ID: OW-52
Collection Date: 8/23/2012 12:50:00 PM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 1:06:47 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 1:06:47 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 1:06:47 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 1:06:47 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 1:06:47 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 1:06:47 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 1:06:47 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	1	9/1/2012 1:06:47 AM
Surr: 4-Bromofluorobenzene	85.6	70-130		%REC	1	9/1/2012 1:06:47 AM
Surr: Dibromofluoromethane	86.4	70-130		%REC	1	9/1/2012 1:06:47 AM
Surr: Toluene-d8	79.9	70-130		%REC	1	9/1/2012 1:06:47 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **IDC**
Conductivity	1000	0.010		µmhos/cm	1	8/28/2012 1:35:29 PM
SM4500-H+B: PH						Analyst: **IDC**
pH	8.33	1.68	H	pH units	1	8/28/2012 1:35:29 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 11:30:00 AM
Lab ID: 1208B37-007
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 1:34:21 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 1:34:21 AM
Acetone	ND	10		µg/L	1	9/1/2012 1:34:21 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 1:34:21 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 1:34:21 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 1:34:21 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 1:34:21 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 1:34:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-007 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012 11:30:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 1:34:21 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 1:34:21 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 1:34:21 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 1:34:21 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 1:34:21 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 1:34:21 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	1	9/1/2012 1:34:21 AM
Surr: 4-Bromofluorobenzene	82.8	70-130		%REC	1	9/1/2012 1:34:21 AM
Surr: Dibromofluoromethane	84.4	70-130		%REC	1	9/1/2012 1:34:21 AM
Surr: Toluene-d8	81.9	70-130		%REC	1	9/1/2012 1:34:21 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B37-008
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Toluene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Ethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Naphthalene	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:01:54 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/1/2012 2:01:54 AM
Acetone	ND	10		µg/L	1	9/1/2012 2:01:54 AM
Bromobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Bromoform	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Bromomethane	ND	3.0		µg/L	1	9/1/2012 2:01:54 AM
2-Butanone	ND	10		µg/L	1	9/1/2012 2:01:54 AM
Carbon disulfide	ND	10		µg/L	1	9/1/2012 2:01:54 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Chlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Chloroethane	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
Chloroform	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Chloromethane	ND	3.0		µg/L	1	9/1/2012 2:01:54 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Dibromomethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
2-Hexanone	ND	10		µg/L	1	9/1/2012 2:01:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B37-008 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/1/2012 2:01:54 AM
Methylene Chloride	ND	3.0		µg/L	1	9/1/2012 2:01:54 AM
n-Butylbenzene	ND	3.0		µg/L	1	9/1/2012 2:01:54 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Styrene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/1/2012 2:01:54 AM
Vinyl chloride	ND	1.0		µg/L	1	9/1/2012 2:01:54 AM
Xylenes, Total	ND	1.5		µg/L	1	9/1/2012 2:01:54 AM
Surr: 1,2-Dichloroethane-d4	83.9	70-130		%REC	1	9/1/2012 2:01:54 AM
Surr: 4-Bromofluorobenzene	85.4	70-130		%REC	1	9/1/2012 2:01:54 AM
Surr: Dibromofluoromethane	85.0	70-130		%REC	1	9/1/2012 2:01:54 AM
Surr: Toluene-d8	83.6	70-130		%REC	1	9/1/2012 2:01:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
p Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3584** RunNo: **5311**

Prep Date: **9/4/2012** Analysis Date: **9/5/2012** SeqNo: **151199** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3584** RunNo: **5311**

Prep Date: **9/4/2012** Analysis Date: **9/5/2012** SeqNo: **151200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **MB-3584** SampType: **MBLK** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **PBW** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155086** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3584** SampType: **LCS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **LCSW** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155087** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.4	85	115			

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-14** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-14** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.47	0.0060	0.5000	0	93.5	70	130			
Copper	0.56	0.0060	0.5000	0	111	70	130			
Lead	0.48	0.0050	0.5000	0.003250	94.7	70	130			
Silver	0.024	0.0050	0.1000	0	24.1	70	130			S
Zinc	0.46	0.010	0.5000	0.001840	91.9	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-14** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155141** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.1	70	130	1.07	20	
Chromium	0.46	0.0060	0.5000	0	92.4	70	130	1.20	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.121	20	
Lead	0.48	0.0050	0.5000	0.003250	94.4	70	130	0.332	20	
Silver	0.025	0.0050	0.1000	0	25.1	70	130	3.78	20	S
Zinc	0.45	0.010	0.5000	0.001840	90.3	70	130	1.70	20	

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-14** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155164** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.6	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **OW-14** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155165** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.1	70	130	0.155	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Metals**
Client ID: **PBW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **154893** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208932-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155236** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.005874	96.1	70	130			
Selenium	0.026	0.0010	0.02500	0.002644	93.5	70	130			

Sample ID **1208C61-004AMS** SampType: **MS** TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.001791	98.5	70	130			
Selenium	0.027	0.0010	0.02500	0.002323	100	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Metals**
Client ID: **LCSW** Batch ID: **R5425** RunNo: **5425**
Prep Date: Analysis Date: **9/11/2012** SeqNo: **155260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	100	85	115			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5508**
Prep Date: **9/4/2012**	Analysis Date: **9/13/2012**	SeqNo: **157391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Sample ID **MB-3888**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3888**	RunNo: **5786**
Prep Date: **9/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166267** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154883** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.025	0.0010	0.02500	0	102	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **154885** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **1208C13-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5425**	RunNo: **5425**
Prep Date:	Analysis Date: **9/11/2012**	SeqNo: **155231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002387	103	70	130			
Selenium	0.026	0.0010	0.02500	0.0004619	104	70	130			

fiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5392**
Prep Date: **9/4/2012**	Analysis Date: **9/6/2012**	SeqNo: **153679** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5508**
Prep Date: **9/4/2012**	Analysis Date: **9/13/2012**	SeqNo: **157424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Sample ID **MB-3888**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3888**	RunNo: **5786**
Prep Date: **9/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3705**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3705**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	80	120			

Sample ID **1208A83-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	75	125			

Sample ID **1208A83-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.517	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.9	90	110			
Chloride	4.6	0.50	5.000	0	91.9	90	110			
Bromide	2.4	0.10	2.500	0	94.6	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.8	90	110			
Sulfate	9.5	0.50	10.00	0	94.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.2	90	110			

Sample ID **1208B32-001CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146223** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.65	0.10	0.5000	0.2431	81.8	76.6	110			
Bromide	2.6	0.10	2.500	0.2557	92.0	83.3	107			

Sample ID **1208B32-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2431	83.3	76.6	110	1.12	20	
Bromide	2.6	0.10	2.500	0.2557	91.9	83.3	107	0.110	20	

Sample ID **1208B37-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **OW-13**	Batch ID: **R5147**	RunNo: **5147**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **146231** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.66	0.10	0.5000	0.2474	83.2	76.6	110			
Bromide	2.6	0.10	2.500	0.3524	91.2	83.3	107			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **OW-13** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **146232** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.67	0.10	0.5000	0.2474	85.0	76.6	110	1.35	20	
Bromide	2.7	0.10	2.500	0.3524	92.0	83.3	107	0.827	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSW** Batch ID: **R5147** RunNo: **5147**

p Date: Analysis Date: **8/28/2012** SeqNo: **146269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.3	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.2	90	110			

Sample ID **1208B33-006CMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146277** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.5	0.10	0.5000	1.140	79.8	76.6	110			
Bromide	2.4	0.10	2.500	0.1141	90.6	83.3	107			

Sample ID **1208B33-006CMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5147** RunNo: **5147**

Prep Date: Analysis Date: **8/28/2012** SeqNo: **146278** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.6	0.10	0.5000	1.140	83.5	76.6	110	1.20	20	
Bromide	2.4	0.10	2.500	0.1141	92.8	83.3	107	2.23	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151555** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151556** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			

Sample ID **1209077-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151574** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	108	87.8	111			

Sample ID **1209077-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5323**	RunNo: **5323**
Prep Date:	Analysis Date: **9/5/2012**	SeqNo: **151575** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	0.50	5.000	9.031	107	87.8	111	0.305	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3489**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145462** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		118	79.5	166			

Sample ID **LCS-3489**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145463** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.2	74	157			
Surr: DNOP	0.51		0.5000		101	79.5	166			

Sample ID **LCSD-3489**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3489**	RunNo: **5106**
Prep Date: **8/27/2012**	Analysis Date: **8/27/2012**	SeqNo: **145464** Units: **mg/L**

lyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.5	74	157	5.19	23	
Surr: DNOP	0.52		0.5000		104	79.5	166	0	0	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147866** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		96.1	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R5174**	RunNo: **5174**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147868** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.41	0.050	0.5000	0	82.3	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBS** Batch ID: **R5174** RunNo: **5174**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147892** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.97		1.000		96.7	80	120			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSS** Batch ID: **R5174** RunNo: **5174**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147893** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID **1208C71-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **BatchQC** Batch ID: **R5174** RunNo: **5174**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147898** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.83		0.8248		101	80	120			

mple ID **1208C71-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

ient ID: **BatchQC** Batch ID: **R5174** RunNo: **5174**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147909** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.86		0.8248		104	80	120	0	0	

fiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150166** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**	
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
anone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150096** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.5	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.2	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.5	70	130			
Surr: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.0	70	130			
Toluene	20	1.0	20.00	0	98.3	80	120			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	92.0	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150102** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.3		10.00		83.1	70	130			
Surr: Toluene-d8	8.6		10.00		86.0	70	130			

Sample ID **1208b33-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150105** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.2	66.8	128			
Toluene	19	1.0	20.00	0	93.4	70	130			
Chlorobenzene	18	1.0	20.00	0	87.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	87.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.7	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
r: Toluene-d8	8.1		10.00		80.9	70	130			

Sample ID **1208b33-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150106** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.0	66.8	128	3.31	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	1.37	18.7	
Chlorobenzene	18	1.0	20.00	0	88.2	70	130	0.567	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.3	70	130	3.50	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	80.0	70	130	9.39	17.5	
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.4		10.00		83.7	70	130	0	0	
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130	0	0	
Surr: Toluene-d8	8.4		10.00		83.6	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **8/31/2012** SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

fiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150141** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
ɔrofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	8.2		10.00		82.2	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.5	70	130			
Surr: Toluene-d8	7.3		10.00		73.3	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **150143** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.4	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	18	1.0	20.00	0	90.4	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.9	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.4	70	130			
Surr: Toluene-d8	8.0		10.00		79.7	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b42-003a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150144** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.7	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.6	70	130			
Surr: Toluene-d8	8.7		10.00		87.0	70	130			

Sample ID **1208b42-003a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150145** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.7	66.8	128	5.60	16.7	
Toluene	19	1.0	20.00	0	93.1	70	130	11.3	18.7	
Chlorobenzene	19	1.0	20.00	0	92.5	70	130	9.49	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	88.4	70	130	4.61	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130	5.77	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.6		10.00		85.7	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		83.9	70	130	0	0	
Surr: Toluene-d8	8.6		10.00		85.5	70	130	0	0	

Sample ID **b7** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
mochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150170** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		86.5	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		82.4	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150173** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	18	1.0	20.00	0	92.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	87.5	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.1	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.6	70	130			
Surr: Dibromofluoromethane	8.6		10.00		85.7	70	130			
Surr: Toluene-d8	8.2		10.00		81.7	70	130			

Sample ID **1208c45-009a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5276**	RunNo: **5276**
Prep Date:	Analysis Date: **9/1/2012**	SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.6	66.8	128			
Toluene	19	1.0	20.00	0	95.4	70	130			
Chlorobenzene	18	1.0	20.00	0	89.0	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0.3838	86.1	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c45-009a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.1		10.00		80.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	8.3		10.00		82.6	70	130			

Sample ID **1208c45-009a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5276** RunNo: **5276**

Prep Date: Analysis Date: **9/1/2012** SeqNo: **150177** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.2	66.8	128	5.78	16.7	
Toluene	19	1.0	20.00	0	93.6	70	130	1.86	18.7	
Chlorobenzene	18	1.0	20.00	0	89.4	70	130	0.446	19.5	
1,1-Dichloroethene	17	1.0	20.00	0	85.0	70	130	6.99	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.3838	80.3	70	130	6.85	17.5	
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130	0	0	
Surr: Dibromofluoromethane	7.8		10.00		77.5	70	130	0	0	
Surr: Toluene-d8	8.3		10.00		82.9	70	130	0	0	

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150947** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.8	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.7	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.1	70	130			
Surr: Toluene-d8	8.4		10.00		84.3	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150949** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.9	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.7	70	130			
Surr: Dibromofluoromethane	8.2		10.00		82.0	70	130			
Surr: Toluene-d8	8.0		10.00		80.5	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208c67-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150961** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	420		500.0		84.0	70	130			
Surr: 4-Bromofluorobenzene	440		500.0		88.6	70	130			
Surr: Dibromofluoromethane	430		500.0		85.4	70	130			
Surr: Toluene-d8	400		500.0		79.9	70	130			

Sample ID **1208c67-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150962** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	440		500.0		87.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	420		500.0		83.7	70	130	0	0	
Surr: Dibromofluoromethane	450		500.0		90.1	70	130	0	0	
Surr: Toluene-d8	420		500.0		83.4	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150988** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.7	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		84.9	70	130			
Surr: Dibromofluoromethane	8.4		10.00		84.5	70	130			
Surr: Toluene-d8	8.1		10.00		81.4	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5302** RunNo: **5302**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150989** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.6	70	130			
Surr: 4-Bromofluorobenzene	8.7		10.00		87.0	70	130			
Surr: Dibromofluoromethane	8.7		10.00		86.8	70	130			
Surr: Toluene-d8	8.1		10.00		80.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID	**1208b00-001a dup**	SampType: **dup**			TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R5163**			RunNo: **5163**					
Prep Date:		Analysis Date: **8/28/2012**			SeqNo: **146809**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	400	0.010						0.0496	20	

Sample ID	**1208a37-001d dup**	SampType: **dup**			TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R5163**			RunNo: **5163**					
Prep Date:		Analysis Date: **8/28/2012**			SeqNo: **146822**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	400	0.010						0.810	20	

Sample ID	**1208a66-001d dup**	SampType: **dup**			TestCode: **EPA 120.1: Specific Conductance**					
Client ID:	**BatchQC**	Batch ID: **R5163**			RunNo: **5163**					
Prep Date:		Analysis Date: **8/28/2012**			SeqNo: **146829**		Units: **µmhos/cm**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	3.6	0.010						35.4	20	R

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B37**

01-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b00-001a dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5163**	RunNo: **5163**							
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146864**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	9.17	1.68								*H

Sample ID **1208a37-001d dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5163**	RunNo: **5163**							
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146876**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.21	1.68								H

Sample ID **1208a66-001d dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R5163**	RunNo: **5163**							
Prep Date:	Analysis Date: **8/28/2012**	SeqNo: **146882**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	5.64	1.68								H

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208B37

Received by/date: CM 08/24/12

Logged By: **Anne Thorne** 8/24/2012 3:40:00 PM Anne Thorne

Completed By: **Anne Thorne** 8/27/2012 Anne Thorne

Reviewed By: MA 08/27/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 18 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208B37	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)																	Air Bubbles (Y or N)
8/23/12	1200	GW	OW-13	10		-001	X	X	X		X														
8/23/12	1215	GW	OW-14	10		-002	X	X	X		X														
8/23/12	1230	GW	OW-29	10		-003	X	X	X		X														
8/23/12	1120	GW	OW-30	10		-004	X	X	X		X														
8/23/12	1310	GW	OW-50	11		-005	X	X	X	X		X													
8/23/12	1250	GW	OW-52	11		-006	X	X	X	X		X													
8/24/12	1130	W	Field Blank	3		-007	X																		
8/24/12	-	W	Trip Blank	2		-008	X																		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	08/24/12	1540

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 02, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling

OrderNo.: 1208A05

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 5 sample(s) on 8/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208A05**
Date Reported: **10/2/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208A05-001 **Matrix:** AQUEOUS

Client Sample ID: East LDU
Collection Date: 8/21/2012 7:30:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	10	1.0		mg/L	1	8/23/2012 6:45:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 6:45:12 PM
Surr: DNOP	132	79.5-166		%REC	1	8/23/2012 6:45:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	17	5.0		mg/L	100	8/24/2012 9:52:56 PM
Surr: BFB	96.5	69.8-119		%REC	100	8/24/2012 9:52:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/24/2012 9:52:56 PM
Benzene	1200	100		µg/L	100	8/24/2012 9:52:56 PM
Toluene	330	100		µg/L	100	8/24/2012 9:52:56 PM
Ethylbenzene	460	100		µg/L	100	8/24/2012 9:52:56 PM
Xylenes, Total	5700	200		µg/L	100	8/24/2012 9:52:56 PM
1,2,4-Trimethylbenzene	840	100		µg/L	100	8/24/2012 9:52:56 PM
1,3,5-Trimethylbenzene	280	100		µg/L	100	8/24/2012 9:52:56 PM
Surr: 4-Bromofluorobenzene	105	55-140		%REC	100	8/24/2012 9:52:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.62	0.0020		mg/L	1	9/4/2012 12:03:46 PM
Cadmium	ND	0.0020		mg/L	1	9/4/2012 12:03:46 PM
Chromium	0.46	0.0060	*	mg/L	1	9/4/2012 12:03:46 PM
Copper	ND	0.0060		mg/L	1	9/4/2012 12:03:46 PM
Iron	0.044	0.020		mg/L	1	9/4/2012 12:03:46 PM
Lead	ND	0.0050		mg/L	1	9/4/2012 12:03:46 PM
Manganese	1.2	0.010	*	mg/L	5	9/4/2012 12:07:45 PM
Selenium	ND	0.050		mg/L	1	9/12/2012 12:11:27 PM
Silver	ND	0.0050		mg/L	1	9/6/2012 12:44:02 PM
Zinc	ND	0.010		mg/L	1	9/4/2012 12:03:46 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.67	0.0020		mg/L	1	8/28/2012 5:21:18 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:21:18 PM
Chromium	0.51	0.0060	*	mg/L	1	8/28/2012 5:21:18 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:21:18 PM
Iron	0.099	0.020		mg/L	1	8/28/2012 5:21:18 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:21:18 PM
Manganese	1.2	0.010	*	mg/L	5	8/28/2012 5:28:30 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:26:43 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:21:18 PM
Zinc	ND	0.010		mg/L	1	8/28/2012 5:21:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0062	0.0010		mg/L	1	8/31/2012 12:35:23 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1208A05**
Date Reported: **10/2/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208A05-001 **Matrix:** AQUEOUS

Client Sample ID: East LDU
Collection Date: 8/21/2012 7:30:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:25:38 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0094	0.0025		mg/L	2.5	8/30/2012 2:33:48 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 2:33:48 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:37:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: West LDU
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 7:40:00 PM
Lab ID: 1208A05-002 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	4.0	1.0	H	mg/L	1	8/23/2012 7:07:00 PM
Motor Oil Range Organics (MRO)	ND	5.0	H	mg/L	1	8/23/2012 7:07:00 PM
Surr: DNOP	140	79.5-166	H	%REC	1	8/23/2012 7:07:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	18	5.0		mg/L	100	8/24/2012 11:53:31 PM
Surr: BFB	95.4	69.8-119		%REC	100	8/24/2012 11:53:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/24/2012 11:53:31 PM
Benzene	1800	100		µg/L	100	8/24/2012 11:53:31 PM
Toluene	3200	100		µg/L	100	8/24/2012 11:53:31 PM
Ethylbenzene	660	100		µg/L	100	8/24/2012 11:53:31 PM
Xylenes, Total	3100	200		µg/L	100	8/24/2012 11:53:31 PM
1,2,4-Trimethylbenzene	550	100		µg/L	100	8/24/2012 11:53:31 PM
1,3,5-Trimethylbenzene	240	100		µg/L	100	8/24/2012 11:53:31 PM
Surr: 4-Bromofluorobenzene	106	55-140		%REC	100	8/24/2012 11:53:31 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.38	0.0020		mg/L	1	9/20/2012 1:08:55 PM
Cadmium	ND	0.0020		mg/L	1	9/20/2012 1:08:55 PM
Chromium	0.032	0.0060		mg/L	1	9/20/2012 1:08:55 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 1:08:55 PM
Iron	0.15	0.020		mg/L	1	9/20/2012 1:08:55 PM
Lead	ND	0.0050		mg/L	1	9/20/2012 1:08:55 PM
Manganese	0.21	0.0020	*	mg/L	1	9/20/2012 1:08:55 PM
Selenium	ND	0.050		mg/L	1	9/20/2012 1:08:55 PM
Silver	ND	0.0050		mg/L	1	9/20/2012 1:08:55 PM
Zinc	0.014	0.010		mg/L	1	9/20/2012 1:08:55 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.40	0.0020		mg/L	1	8/28/2012 5:44:24 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:44:24 PM
Chromium	0.036	0.0060		mg/L	1	8/28/2012 5:44:24 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:44:24 PM
Iron	0.26	0.020		mg/L	1	8/28/2012 5:44:24 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:44:24 PM
Manganese	0.22	0.010	*	mg/L	5	8/28/2012 5:48:06 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:34:29 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:44:24 PM
Zinc	ND	0.010		mg/L	1	8/28/2012 5:44:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0020	0.0010		mg/L	1	8/31/2012 12:43:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1208A05**
Date Reported: **10/2/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208A05-002 **Matrix:** AQUEOUS

Client Sample ID: West LDU
Collection Date: 8/21/2012 7:40:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:33:32 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	8/28/2012 12:58:42 PM
Uranium	ND	0.0025		mg/L	2.5	8/28/2012 12:58:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:39:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Oil Sump LDU
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/21/2012 7:20:00 PM
Lab ID: 1208A05-003 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	8.8	1.0		mg/L	1	8/23/2012 7:28:52 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/23/2012 7:28:52 PM
Surr: DNOP	136	79.5-166		%REC	1	8/23/2012 7:28:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	28	10		mg/L	200	8/25/2012 12:23:45 AM
Surr: BFB	96.5	69.8-119		%REC	200	8/25/2012 12:23:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	8/25/2012 12:23:45 AM
Benzene	1800	200		µg/L	200	8/25/2012 12:23:45 AM
Toluene	6000	200		µg/L	200	8/25/2012 12:23:45 AM
Ethylbenzene	590	200		µg/L	200	8/25/2012 12:23:45 AM
Xylenes, Total	5500	400		µg/L	200	8/25/2012 12:23:45 AM
1,2,4-Trimethylbenzene	850	200		µg/L	200	8/25/2012 12:23:45 AM
1,3,5-Trimethylbenzene	270	200		µg/L	200	8/25/2012 12:23:45 AM
Surr: 4-Bromofluorobenzene	106	55-140		%REC	200	8/25/2012 12:23:45 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.40	0.0020		mg/L	1	9/20/2012 1:16:25 PM
Cadmium	ND	0.0020		mg/L	1	9/20/2012 1:16:25 PM
Chromium	0.061	0.0060		mg/L	1	9/20/2012 1:16:25 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 1:16:25 PM
Iron	0.19	0.020		mg/L	1	9/20/2012 1:16:25 PM
Lead	ND	0.0050		mg/L	1	9/20/2012 1:16:25 PM
Manganese	1.1	0.010	*	mg/L	5	9/20/2012 1:20:16 PM
Selenium	ND	0.050		mg/L	1	9/20/2012 1:16:25 PM
Silver	ND	0.0050		mg/L	1	9/20/2012 1:16:25 PM
Zinc	0.015	0.010		mg/L	1	9/20/2012 1:16:25 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.45	0.0020		mg/L	1	8/28/2012 5:51:42 PM
Cadmium	ND	0.0020		mg/L	1	8/28/2012 5:51:42 PM
Chromium	0.069	0.0060		mg/L	1	8/28/2012 5:51:42 PM
Copper	ND	0.0060		mg/L	1	8/28/2012 5:51:42 PM
Iron	0.86	0.020	*	mg/L	1	8/28/2012 5:51:42 PM
Lead	ND	0.0050		mg/L	1	8/28/2012 5:51:42 PM
Manganese	1.1	0.010	*	mg/L	5	8/28/2012 5:54:59 PM
Selenium	ND	0.050		mg/L	1	9/26/2012 4:42:03 PM
Silver	ND	0.0050		mg/L	1	8/28/2012 5:51:42 PM
Zinc	0.055	0.010		mg/L	1	8/28/2012 5:51:42 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.011	0.0010	*	mg/L	1	8/31/2012 12:47:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1208A05**
Date Reported: **10/2/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208A05-003 **Matrix:** AQUEOUS

Client Sample ID: Oil Sump LDU
Collection Date: 8/21/2012 7:20:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Uranium	ND	0.0010		mg/L	1	9/4/2012 3:37:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.011	0.0025	*	mg/L	2.5	8/30/2012 2:41:40 PM
Uranium	ND	0.0025		mg/L	2.5	8/30/2012 2:41:40 PM
EPA METHOD 245.1: MERCURY						Analyst: **TES**
Mercury	ND	0.00020		mg/L	1	8/30/2012 4:41:02 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208A05-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/21/2012 7:45:00 PM
Received Date: 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2012 1:24:17 AM
Benzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Xylenes, Total	ND	2.0		µg/L	1	8/25/2012 1:24:17 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:24:17 AM
Surr: 4-Bromofluorobenzene	101	55-140		%REC	1	8/25/2012 1:24:17 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208A05-005 **Matrix:** AQUEOUS **Received Date:** 8/22/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/25/2012 1:54:25 AM
Benzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Toluene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Ethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Xylenes, Total	ND	2.0		µg/L	1	8/25/2012 1:54:25 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/25/2012 1:54:25 AM
Surr: 4-Bromofluorobenzene	110	55-140		%REC	1	8/25/2012 1:54:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3474**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3474**	RunNo: **5114**
Prep Date: **8/24/2012**	Analysis Date: **8/27/2012**	SeqNo: **145375** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3474**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3474**	RunNo: **5114**
Prep Date: **8/24/2012**	Analysis Date: **8/27/2012**	SeqNo: **145376** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.53	0.0060	0.5000	0	107	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.52	0.0050	0.5000	0	104	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.1	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152123** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	105	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R5654** RunNo: **5654**

Prep Date: Analysis Date: **9/20/2012** SeqNo: **161960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R5654** RunNo: **5654**

Prep Date: Analysis Date: **9/20/2012** SeqNo: **161961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.48	0.0060	0.5000	0	95.0	85	115			
Copper	0.50	0.0060	0.5000	0	99.9	85	115			
Iron	0.51	0.020	0.5000	0	101	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.50	0.0020	0.5000	0	99.8	85	115			
Selenium	0.48	0.050	0.5000	0	95.1	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.47	0.010	0.5000	0	94.1	85	115			

Sample ID **1209674-003BMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R5654** RunNo: **5654**

Prep Date: Analysis Date: **9/20/2012** SeqNo: **161972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			
Manganese	0.50	0.0020	0.5000	0.0007300	99.7	70	130			

Sample ID **1209674-003BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R5654** RunNo: **5654**

Prep Date: Analysis Date: **9/20/2012** SeqNo: **161973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	103	70	130	2.16	20	
Manganese	0.51	0.0020	0.5000	0.0007300	101	70	130	1.69	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5288**	RunNo: **5288**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150525** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5288**	RunNo: **5288**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150526** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.4	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.1	85	115			
Chromium	0.48	0.0060	0.5000	0	96.7	85	115			
Copper	0.50	0.0060	0.5000	0	99.5	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Lead	0.50	0.0050	0.5000	0	99.1	85	115			
Manganese	0.48	0.0020	0.5000	0	95.5	85	115			
Zinc	0.47	0.010	0.5000	0	94.4	85	115			

Sample ID **1208A45-006CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5288**	RunNo: **5288**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150572** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0.003490	99.9	70	130			

Sample ID **1208A45-006CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5288**	RunNo: **5288**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150573** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0.003490	97.2	70	130	2.73	20	

Sample ID **1208776-001DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208776-001DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152201** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.077	0.0050	0.1000	0	76.5	70	130			

Sample ID **1208776-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.080	0.0050	0.1000	0	80.4	70	130	4.92	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152218** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5345**	RunNo: **5345**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152219** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	105	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.50	0.050	0.5000	0	99.8	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.48	0.050	0.5000	0	95.2	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5654**	RunNo: **5654**
Prep Date:	Analysis Date: **9/20/2012**	SeqNo: **161891** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5654**	RunNo: **5654**
Prep Date:	Analysis Date: **9/20/2012**	SeqNo: **161892** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.50	0.0060	0.5000	0	99.4	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Zinc	0.51	0.010	0.5000	0.0008400	102	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

All Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3474**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3474**	RunNo: **5114**
Prep Date: **8/24/2012**	Analysis Date: **8/27/2012**	SeqNo: **145152** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Selenium	ND	0.050								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-3474**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3474**	RunNo: **5114**
Prep Date: **8/24/2012**	Analysis Date: **8/27/2012**	SeqNo: **145153** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.52	0.0060	0.5000	0	103	85	115			
Copper	0.53	0.0060	0.5000	0	107	85	115			
Iron	0.48	0.020	0.5000	0	96.3	85	115			
Lead	0.52	0.0050	0.5000	0	104	85	115			
Manganese	0.51	0.0020	0.5000	0	102	85	115			
Selenium	0.51	0.050	0.5000	0	101	85	115			
Silver	0.11	0.0050	0.1000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	99.1	85	115			

Sample ID **1208A45-004BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **3474**	RunNo: **5156**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146641** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.52	0.0060	0.5000	0	104	70	130			

Sample ID **1208A45-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **3474**	RunNo: **5156**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.3	70	130	4.50	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3474**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3474**	RunNo: **5777**
Prep Date: **8/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166346** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.050								

Sample ID **LCS-3474**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3474**	RunNo: **5777**
Prep Date: **8/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166347** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.52	0.050	0.5000	0	105	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

...ll Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3474**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3474**	RunNo: **5162**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146691** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5246**	RunNo: **5246**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **149394** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5246**	RunNo: **5246**
Prep Date:	Analysis Date: **8/31/2012**	SeqNo: **149397** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

...mple ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150651** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

...fiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Metals**						
Client ID: **PBW**	Batch ID: **R5291**			RunNo: **5291**						
Prep Date:	Analysis Date: **9/4/2012**			SeqNo: **150651**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A93-001BMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5246** RunNo: **5246**
Prep Date: Analysis Date: **8/31/2012** SeqNo: **149411** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0003118	98.7	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5246** RunNo: **5246**
Prep Date: Analysis Date: **8/31/2012** SeqNo: **149413** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	103	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R5246** RunNo: **5246**
Prep Date: Analysis Date: **8/31/2012** SeqNo: **149415** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **1208655-003EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5291** RunNo: **5291**
Prep Date: Analysis Date: **9/4/2012** SeqNo: **150661** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.036	0.0010	0.02500	0.008655	109	70	130			

Sample ID **1208782-007FMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R5291** RunNo: **5291**
Prep Date: Analysis Date: **9/4/2012** SeqNo: **150672** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.028	0.0010	0.02500	0.003860	98.3	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5291** RunNo: **5291**
Prep Date: Analysis Date: **9/4/2012** SeqNo: **150687** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R5291** RunNo: **5291**
Prep Date: Analysis Date: **9/4/2012** SeqNo: **150688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	100	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150689** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5291**	RunNo: **5291**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150690** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3474**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3474**	RunNo: **5162**
Prep Date: **8/24/2012**	Analysis Date: **8/28/2012**	SeqNo: **146725** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Uranium	ND	0.0025								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1208A05**

Hall Environmental Analysis Laboratory, Inc.

02-Oct-12

Client: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3531**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3531**	RunNo: **5221**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3531**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3531**	RunNo: **5221**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148382** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	80	120			

Sample ID **1208654-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3531**	RunNo: **5221**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148401** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125			

Sample ID **1208654-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3531**	RunNo: **5221**
Prep Date: **8/29/2012**	Analysis Date: **8/30/2012**	SeqNo: **148402** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	75	125	0.553	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

...ll Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3460**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143373** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.3		1.000		126	79.5	166			

Sample ID **LCS-3460**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143388** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	84.0	74	157			
Surr: DNOP	0.51		0.5000		103	79.5	166			

Sample ID **LCSD-3460**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **3460**	RunNo: **5044**
Prep Date: **8/23/2012**	Analysis Date: **8/23/2012**	SeqNo: **143389** Units: **mg/L**

...yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	82.7	74	157	1.52	23	
Surr: DNOP	0.51		0.5000		102	79.5	166	0	0	

...fiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **PBW** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145076** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.2	69.8	119			

Sample ID **2.5UG GRO LCSB** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **LCSW** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0	87.8	75.9	119			
Surr: BFB	18		20.00		88.2	69.8	119			

Sample ID **1208990-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145080** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.8	63.5	131			
Surr: BFB	210		200.0		106	69.8	119			

Sample ID **1208990-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.5	0.50	5.000	0.1420	86.9	63.5	131	0.134	16.7	
Surr: BFB	210		200.0		105	69.8	119	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145099** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	22		20.00		108	55	140			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145100** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	96.5	66.9	136			
Benzene	22	1.0	20.00	0	111	80	120			
Toluene	22	1.0	20.00	0	112	80	120			
Ethylbenzene	23	1.0	20.00	0	113	80	120			
Xylenes, Total	68	2.0	60.00	0	113	80	120			
1,2,4-Trimethylbenzene	22	1.0	20.00	0	110	74.3	117			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	112	75.8	117			
Surr: 4-Bromofluorobenzene	23		20.00		114	55	140			

Sample ID **1208A05-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **East LDU** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145103** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1900	250	2000	0	95.0	45.1	137			
Benzene	3400	100	2000	1151	110	74.1	124			
Toluene	2500	100	2000	327.2	111	75.2	124			
Ethylbenzene	2700	100	2000	457.6	111	69	125			
Xylenes, Total	12000	200	6000	5715	109	73.1	126			
1,2,4-Trimethylbenzene	3000	100	2000	839.4	108	63.1	121			
1,3,5-Trimethylbenzene	2500	100	2000	277.6	110	60	133			
Surr: 4-Bromofluorobenzene	1900		2000		97.5	55	140			

Sample ID **1208A05-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **East LDU** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145104** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208A05**

02-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A05-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **East LDU** Batch ID: **R5110** RunNo: **5110**

Prep Date: Analysis Date: **8/24/2012** SeqNo: **145104** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2000	250	2000	0	99.5	45.1	137	4.69	13.6	
Benzene	3300	100	2000	1151	109	74.1	124	0.677	11.2	
Toluene	2500	100	2000	327.2	110	75.2	124	0.852	11.9	
Ethylbenzene	2700	100	2000	457.6	111	69	125	0.702	13.5	
Xylenes, Total	12000	200	6000	5715	108	73.1	126	0.358	13	
1,2,4-Trimethylbenzene	3000	100	2000	839.4	107	63.1	121	0.615	14.7	
1,3,5-Trimethylbenzene	2500	100	2000	277.6	111	60	133	0.618	14	
Surr: 4-Bromofluorobenzene	2600		2000		128	55	140	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1208A05

Received by/date: _____

Logged By: **Anne Thorne** 8/22/2012 1:20:00 PM — Anne Thorne

Completed By: **Anne Thorne** 8/22/2012 — Anne Thorne

Reviewed By: IO 08/23/12

Chain of Custody

1. Were seals intact? — Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — ~~Yes ☑~~ ~~No ☑~~
10. Was preserved added to bottles? — Yes ☑ No ☑ NA ☐

0018-0038 - ADDED 1mL HNO3 0034 - ADDED 0.4mL HNO3 FOR ACCEPTABLE pH. 08/23/1

11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted? YES
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain of Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Western Refining

Mailing Address: Rt 3 Box 7, Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ NELAP ☐ Other ☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208A05	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
8/21/12	1930	GW	East LDU	6	HCl, HNO3	-001	X	X	X
8/21/12	1940	GW	West LDU	6		-002	X	X	X
8/21/12	1920	GW	Oil Sump LDU	6		-003	X	X	X
8/21/12	1945	W	Field Blank	3		-004	X		
8/21/12	—	W	~~Trip Blank~~ Trip Blank AT 08/22/12	3		-005	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/22/12	0830				
8/22/12	13:20			08/22/12	1320

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 03, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd QTR 2012 Groundwater Sampling OrderNo.: 1208B34

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/24/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1208B34**
Date Reported: **10/3/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:50:00 AM
Lab ID: 1208B34-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.50		mg/L	5	8/27/2012 6:46:04 PM
Chloride	380	10		mg/L	20	8/27/2012 6:58:29 PM
Bromide	3.8	0.50		mg/L	5	8/27/2012 6:46:04 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 6:46:04 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 6:46:04 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 4:50:22 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	3.6	0.010	*	mg/L	5	9/12/2012 2:44:44 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:41:34 PM
Calcium	210	5.0		mg/L	5	9/12/2012 2:44:44 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:41:34 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:41:34 PM
Iron	7.6	0.20	*	mg/L	10	9/12/2012 3:54:26 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:41:34 PM
Magnesium	39	1.0		mg/L	1	9/12/2012 2:41:34 PM
Manganese	3.6	0.010	*	mg/L	5	9/12/2012 2:44:44 PM
Potassium	1.3	1.0		mg/L	1	9/12/2012 2:41:34 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:41:34 PM
Sodium	250	5.0		mg/L	5	9/12/2012 2:44:44 PM
Zinc	0.021	0.010		mg/L	1	9/12/2012 2:41:34 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:00:08 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 8:57:22 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 8:57:22 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 8:57:22 AM
Iron	6.9	0.40	*	mg/L	20	9/11/2012 10:37:00 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 8:57:22 AM
Manganese	3.6	0.010	*	mg/L	5	9/10/2012 9:00:08 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:22:23 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 8:57:22 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0090	0.0010		mg/L	1	9/6/2012 3:20:21 PM
Selenium	0.0062	0.0010		mg/L	1	9/6/2012 3:20:21 PM
Uranium	0.0041	0.0010		mg/L	1	9/6/2012 3:20:21 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.010	0.0025	*	mg/L	2.5	9/6/2012 6:02:31 PM
Selenium	0.0057	0.0025		mg/L	2.5	9/26/2012 10:48:39 AM
Uranium	0.0041	0.0025		mg/L	2.5	9/13/2012 1:35:50 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-001 **Matrix:** AQUEOUS

Client Sample ID: RW-1
Collection Date: 8/23/2012 10:50:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 9:52:58 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Aniline	160	10		µg/L	1	8/31/2012 11:37:40 AM
Anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Azobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Benzoic acid	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Carbazole	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Chrysene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dimethylphenol	210	10		µg/L	1	8/31/2012 11:37:40 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:50:00 AM
Lab ID: 1208B34-001
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Fluoranthene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Fluorene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Isophorone	ND	10		µg/L	1	8/31/2012 11:37:40 AM
1-Methylnaphthalene	300	50		µg/L	5	8/31/2012 3:33:50 PM
2-Methylnaphthalene	610	50		µg/L	5	8/31/2012 3:33:50 PM
2-Methylphenol	240	50		µg/L	5	8/31/2012 3:33:50 PM
3+4-Methylphenol	160	50		µg/L	5	8/31/2012 3:33:50 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Naphthalene	890	50		µg/L	5	8/31/2012 3:33:50 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 11:37:40 AM
Phenanthrene	20	10		µg/L	1	8/31/2012 11:37:40 AM
Phenol	110	10		µg/L	1	8/31/2012 11:37:40 AM
Pyrene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Pyridine	31	10		µg/L	1	8/31/2012 11:37:40 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 11:37:40 AM
Surr: 2,4,6-Tribromophenol	91.6	44.2-126		%REC	1	8/31/2012 11:37:40 AM
Surr: 2-Fluorobiphenyl	86.8	37-114		%REC	1	8/31/2012 11:37:40 AM
Surr: 2-Fluorophenol	0	23.4-98	S	%REC	1	8/31/2012 11:37:40 AM
Surr: 4-Terphenyl-d14	73.4	41.3-116		%REC	1	8/31/2012 11:37:40 AM
Surr: Nitrobenzene-d5	50.4	39.5-118		%REC	1	8/31/2012 11:37:40 AM
Surr: Phenol-d5	58.9	20.9-95.9		%REC	1	8/31/2012 11:37:40 AM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	45000	1000		µg/L	1000	9/4/2012 7:08:27 PM
Toluene	82000	1000		µg/L	1000	9/4/2012 7:08:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:50:00 AM
Lab ID: 1208B34-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	4900	1000		µg/L	1000	9/4/2012 7:08:27 PM
Methyl tert-butyl ether (MTBE)	3100	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,4-Trimethylbenzene	2800	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3,5-Trimethylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichloroethane (EDC)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dibromoethane (EDB)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Naphthalene	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
1-Methylnaphthalene	ND	4000		µg/L	1000	9/4/2012 7:08:27 PM
2-Methylnaphthalene	ND	4000		µg/L	1000	9/4/2012 7:08:27 PM
Acetone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Bromobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromodichloromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromoform	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Bromomethane	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
2-Butanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Carbon disulfide	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Carbon Tetrachloride	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chloroethane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Chloroform	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Chloromethane	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
2-Chlorotoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
4-Chlorotoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
cis-1,2-DCE	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
cis-1,3-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dibromo-3-chloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Dibromochloromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Dibromomethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,4-Dichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Dichlorodifluoromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloroethene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2-Dichloropropane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,3-Dichloropropane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
2,2-Dichloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
1,1-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Hexachlorobutadiene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
2-Hexanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Isopropylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
4-Isopropyltoluene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-1
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:50:00 AM
Lab ID: 1208B34-001 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	10000		µg/L	1000	9/4/2012 7:08:27 PM
Methylene Chloride	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
n-Butylbenzene	ND	3000		µg/L	1000	9/4/2012 7:08:27 PM
n-Propylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
sec-Butylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Styrene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
tert-Butylbenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,1,2-Tetrachloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,2,2-Tetrachloroethane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Tetrachloroethene (PCE)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
trans-1,2-DCE	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
trans-1,3-Dichloropropene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,3-Trichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,4-Trichlorobenzene	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,1-Trichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,1,2-Trichloroethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Trichloroethene (TCE)	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Trichlorofluoromethane	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
1,2,3-Trichloropropane	ND	2000		µg/L	1000	9/4/2012 7:08:27 PM
Vinyl chloride	ND	1000		µg/L	1000	9/4/2012 7:08:27 PM
Xylenes, Total	31000	1500		µg/L	1000	9/4/2012 7:08:27 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: 4-Bromofluorobenzene	99.7	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1000	9/4/2012 7:08:27 PM
Surr: Toluene-d8	96.2	70-130		%REC	1000	9/4/2012 7:08:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 8:30:00 AM
Lab ID: 1208B34-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.50		mg/L	5	8/27/2012 7:10:53 PM
Chloride	90	2.5		mg/L	5	8/27/2012 7:10:53 PM
Bromide	1.7	0.50		mg/L	5	8/27/2012 7:10:53 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 7:10:53 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 7:10:53 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:02:46 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	3.5	0.010	*	mg/L	5	9/12/2012 2:53:30 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:48:39 PM
Calcium	130	5.0		mg/L	5	9/12/2012 2:53:30 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:48:39 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:48:39 PM
Iron	10	0.40	*	mg/L	20	9/12/2012 3:59:53 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:48:39 PM
Magnesium	25	1.0		mg/L	1	9/12/2012 2:48:39 PM
Manganese	2.1	0.010	*	mg/L	5	9/12/2012 2:53:30 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:48:39 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:48:39 PM
Sodium	200	5.0		mg/L	5	9/12/2012 2:53:30 PM
Zinc	0.023	0.010		mg/L	1	9/12/2012 2:48:39 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:07:29 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:04:41 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:04:41 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:04:41 AM
Iron	10	0.40	*	mg/L	20	9/11/2012 10:45:17 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:04:41 AM
Manganese	2.1	0.010	*	mg/L	5	9/10/2012 9:07:29 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:42:16 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:04:41 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0073	0.0010		mg/L	1	9/6/2012 3:24:17 PM
Selenium	0.0046	0.0010		mg/L	1	9/6/2012 3:24:17 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:24:17 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0069	0.0025		mg/L	2.5	9/6/2012 6:08:11 PM
Selenium	0.0044	0.0025		mg/L	2.5	9/26/2012 10:52:35 AM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:37:42 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 8:30:00 AM
Lab ID: 1208B34-002
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 9:54:43 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Aniline	210	10		µg/L	1	8/31/2012 12:07:02 PM
Anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Carbazole	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Chrysene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dimethylphenol	220	10		µg/L	1	8/31/2012 12:07:02 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 8:30:00 AM
Lab ID: 1208B34-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Fluorene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Isophorone	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1-Methylnaphthalene	43	10		µg/L	1	8/31/2012 12:07:02 PM
2-Methylnaphthalene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Methylphenol	28	10		µg/L	1	8/31/2012 12:07:02 PM
3+4-Methylphenol	25	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Naphthalene	43	10		µg/L	1	8/31/2012 12:07:02 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 12:07:02 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Phenol	91	10		µg/L	1	8/31/2012 12:07:02 PM
Pyrene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Pyridine	ND	10		µg/L	1	8/31/2012 12:07:02 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:07:02 PM
Surr: 2,4,6-Tribromophenol	71.4	44.2-126		%REC	1	8/31/2012 12:07:02 PM
Surr: 2-Fluorobiphenyl	81.2	37-114		%REC	1	8/31/2012 12:07:02 PM
Surr: 2-Fluorophenol	18.4	23.4-98	S	%REC	1	8/31/2012 12:07:02 PM
Surr: 4-Terphenyl-d14	70.7	41.3-116		%REC	1	8/31/2012 12:07:02 PM
Surr: Nitrobenzene-d5	67.3	39.5-118		%REC	1	8/31/2012 12:07:02 PM
Surr: Phenol-d5	44.8	20.9-95.9		%REC	1	8/31/2012 12:07:02 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	42000	1000		µg/L	1000	9/4/2012 7:37:55 PM
Toluene	2600	100		µg/L	100	9/4/2012 8:07:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 8:30:00 AM
Lab ID: 1208B34-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	590	100		µg/L	100	9/4/2012 8:07:21 PM
Methyl tert-butyl ether (MTBE)	3300	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,4-Trimethylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3,5-Trimethylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Naphthalene	ND	200		µg/L	100	9/4/2012 8:07:21 PM
1-Methylnaphthalene	ND	400		µg/L	100	9/4/2012 8:07:21 PM
2-Methylnaphthalene	ND	400		µg/L	100	9/4/2012 8:07:21 PM
Acetone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Bromobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromodichloromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromoform	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Bromomethane	ND	300		µg/L	100	9/4/2012 8:07:21 PM
2-Butanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Carbon disulfide	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Carbon Tetrachloride	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chloroethane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Chloroform	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Chloromethane	ND	300		µg/L	100	9/4/2012 8:07:21 PM
2-Chlorotoluene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
4-Chlorotoluene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
cis-1,2-DCE	ND	100		µg/L	100	9/4/2012 8:07:21 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Dibromochloromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Dibromomethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Dichlorodifluoromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloroethene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2-Dichloropropane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,3-Dichloropropane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
2,2-Dichloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
1,1-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Hexachlorobutadiene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
2-Hexanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Isopropylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
4-Isopropyltoluene	ND	100		µg/L	100	9/4/2012 8:07:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-2
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012 8:30:00 AM
Lab ID: 1208B34-002 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	1000		µg/L	100	9/4/2012 8:07:21 PM
Methylene Chloride	ND	300		µg/L	100	9/4/2012 8:07:21 PM
n-Butylbenzene	ND	300		µg/L	100	9/4/2012 8:07:21 PM
n-Propylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
sec-Butylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Styrene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
tert-Butylbenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
trans-1,2-DCE	ND	100		µg/L	100	9/4/2012 8:07:21 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Trichloroethene (TCE)	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Trichlorofluoromethane	ND	100		µg/L	100	9/4/2012 8:07:21 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	9/4/2012 8:07:21 PM
Vinyl chloride	ND	100		µg/L	100	9/4/2012 8:07:21 PM
Xylenes, Total	1700	150		µg/L	100	9/4/2012 8:07:21 PM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: 4-Bromofluorobenzene	90.9	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: Dibromofluoromethane	106	70-130		%REC	100	9/4/2012 8:07:21 PM
Surr: Toluene-d8	94.6	70-130		%REC	100	9/4/2012 8:07:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:00:00 AM
Lab ID: 1208B34-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	0.80	0.50		mg/L	5	8/27/2012 7:35:42 PM
Chloride	11	2.5		mg/L	5	8/27/2012 7:35:42 PM
Bromide	ND	0.50		mg/L	5	8/27/2012 7:35:42 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 7:35:42 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 7:35:42 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:15:11 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	2.7	0.010	*	mg/L	5	9/12/2012 2:59:48 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 2:56:44 PM
Calcium	52	1.0		mg/L	1	9/12/2012 2:56:44 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 2:56:44 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 2:56:44 PM
Iron	3.7	0.10	*	mg/L	5	9/12/2012 2:59:48 PM
Lead	ND	0.0050		mg/L	1	9/12/2012 2:56:44 PM
Magnesium	9.9	1.0		mg/L	1	9/12/2012 2:56:44 PM
Manganese	0.69	0.0020	*	mg/L	1	9/12/2012 2:56:44 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 2:56:44 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 2:56:44 PM
Sodium	190	5.0		mg/L	5	9/12/2012 2:59:48 PM
Zinc	0.017	0.010		mg/L	1	9/12/2012 2:56:44 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	3.1	0.010	*	mg/L	5	9/10/2012 9:13:03 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:10:18 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:10:18 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:10:18 AM
Iron	5.0	0.40	*	mg/L	20	9/11/2012 10:51:40 AM
Lead	ND	0.0050		mg/L	1	9/10/2012 9:10:18 AM
Manganese	0.76	0.0020	*	mg/L	1	9/10/2012 9:10:18 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:48:46 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:10:18 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0022	0.0010		mg/L	1	9/6/2012 3:28:13 PM
Selenium	0.0010	0.0010		mg/L	1	9/6/2012 3:28:13 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:28:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0033	0.0025		mg/L	2.5	9/6/2012 6:10:03 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:10:03 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:43:22 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-003 **Matrix:** AQUEOUS

Client Sample ID: RW-5
Collection Date: 8/23/2012 10:00:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:00:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Aniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Carbazole	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Chrysene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:00:00 AM
Lab ID: 1208B34-003
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Fluorene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Isophorone	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1-Methylnaphthalene	88	10		µg/L	1	8/31/2012 12:36:27 PM
2-Methylnaphthalene	110	10		µg/L	1	8/31/2012 12:36:27 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Naphthalene	79	10		µg/L	1	8/31/2012 12:36:27 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 12:36:27 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Phenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pyrene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Pyridine	ND	10		µg/L	1	8/31/2012 12:36:27 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 12:36:27 PM
Surr: 2,4,6-Tribromophenol	94.2	44.2-126		%REC	1	8/31/2012 12:36:27 PM
Surr: 2-Fluorobiphenyl	78.8	37-114		%REC	1	8/31/2012 12:36:27 PM
Surr: 2-Fluorophenol	54.5	23.4-98		%REC	1	8/31/2012 12:36:27 PM
Surr: 4-Terphenyl-d14	71.4	41.3-116		%REC	1	8/31/2012 12:36:27 PM
Surr: Nitrobenzene-d5	74.9	39.5-118		%REC	1	8/31/2012 12:36:27 PM
Surr: Phenol-d5	44.2	20.9-95.9		%REC	1	8/31/2012 12:36:27 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	190	10		µg/L	10	9/4/2012 9:06:06 PM
Toluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:00:00 AM
Lab ID: 1208B34-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	260	10		µg/L	10	9/4/2012 9:06:06 PM
Methyl tert-butyl ether (MTBE)	32	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,4-Trimethylbenzene	54	10		µg/L	10	9/4/2012 9:06:06 PM
1,3,5-Trimethylbenzene	16	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Naphthalene	110	20		µg/L	10	9/4/2012 9:06:06 PM
1-Methylnaphthalene	110	40		µg/L	10	9/4/2012 9:06:06 PM
2-Methylnaphthalene	170	40		µg/L	10	9/4/2012 9:06:06 PM
Acetone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Bromobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromodichloromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromoform	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Bromomethane	ND	30		µg/L	10	9/4/2012 9:06:06 PM
2-Butanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Carbon disulfide	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Carbon Tetrachloride	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chloroethane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Chloroform	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Chloromethane	ND	30		µg/L	10	9/4/2012 9:06:06 PM
2-Chlorotoluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
4-Chlorotoluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
cis-1,2-DCE	ND	10		µg/L	10	9/4/2012 9:06:06 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Dibromochloromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Dibromomethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Dichlorodifluoromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloroethene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2-Dichloropropane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,3-Dichloropropane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
2,2-Dichloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
1,1-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Hexachlorobutadiene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
2-Hexanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Isopropylbenzene	18	10		µg/L	10	9/4/2012 9:06:06 PM
4-Isopropyltoluene	ND	10		µg/L	10	9/4/2012 9:06:06 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-5
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:00:00 AM
Lab ID: 1208B34-003 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	100		µg/L	10	9/4/2012 9:06:06 PM
Methylene Chloride	ND	30		µg/L	10	9/4/2012 9:06:06 PM
n-Butylbenzene	ND	30		µg/L	10	9/4/2012 9:06:06 PM
n-Propylbenzene	68	10		µg/L	10	9/4/2012 9:06:06 PM
sec-Butylbenzene	13	10		µg/L	10	9/4/2012 9:06:06 PM
Styrene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
tert-Butylbenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
trans-1,2-DCE	ND	10		µg/L	10	9/4/2012 9:06:06 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Trichloroethene (TCE)	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Trichlorofluoromethane	ND	10		µg/L	10	9/4/2012 9:06:06 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	9/4/2012 9:06:06 PM
Vinyl chloride	ND	10		µg/L	10	9/4/2012 9:06:06 PM
Xylenes, Total	91	15		µg/L	10	9/4/2012 9:06:06 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: Dibromofluoromethane	102	70-130		%REC	10	9/4/2012 9:06:06 PM
Surr: Toluene-d8	100	70-130		%REC	10	9/4/2012 9:06:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:15:00 AM
Lab ID: 1208B34-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.50		mg/L	5	8/27/2012 8:00:32 PM
Chloride	45	2.5		mg/L	5	8/27/2012 8:00:32 PM
Bromide	0.95	0.50		mg/L	5	8/27/2012 8:00:32 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2012 8:00:32 PM
Sulfate	ND	2.5		mg/L	5	8/27/2012 8:00:32 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/29/2012 5:27:35 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	3.7	0.010	*	mg/L	5	9/12/2012 3:06:42 PM
Cadmium	ND	0.0020		mg/L	1	9/12/2012 3:03:34 PM
Calcium	77	1.0		mg/L	1	9/12/2012 3:03:34 PM
Chromium	ND	0.0060		mg/L	1	9/12/2012 3:03:34 PM
Copper	ND	0.0060		mg/L	1	9/12/2012 3:03:34 PM
Iron	8.3	0.20	*	mg/L	10	9/12/2012 4:04:12 PM
Lead	0.0091	0.0050		mg/L	1	9/12/2012 3:03:34 PM
Magnesium	15	1.0		mg/L	1	9/12/2012 3:03:34 PM
Manganese	0.92	0.0020	*	mg/L	1	9/12/2012 3:03:34 PM
Potassium	ND	1.0		mg/L	1	9/12/2012 3:03:34 PM
Silver	ND	0.0050		mg/L	1	9/12/2012 3:03:34 PM
Sodium	290	5.0		mg/L	5	9/12/2012 3:06:42 PM
Zinc	0.021	0.010		mg/L	1	9/12/2012 3:03:34 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	3.7	0.010	*	mg/L	5	9/10/2012 9:29:13 AM
Cadmium	ND	0.0020		mg/L	1	9/10/2012 9:26:22 AM
Chromium	ND	0.0060		mg/L	1	9/10/2012 9:26:22 AM
Copper	ND	0.0060		mg/L	1	9/10/2012 9:26:22 AM
Iron	7.4	0.40	*	mg/L	20	9/11/2012 10:58:06 AM
Lead	0.0093	0.0050		mg/L	1	9/10/2012 9:26:22 AM
Manganese	0.89	0.0020	*	mg/L	1	9/10/2012 9:26:22 AM
Silver	ND	0.0050		mg/L	1	9/11/2012 10:55:05 AM
Zinc	ND	0.010		mg/L	1	9/10/2012 9:26:22 AM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.015	0.0010	*	mg/L	1	9/6/2012 3:32:09 PM
Selenium	0.0016	0.0010		mg/L	1	9/6/2012 3:32:09 PM
Uranium	ND	0.0010		mg/L	1	9/6/2012 3:32:09 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.015	0.0025	*	mg/L	2.5	9/6/2012 6:53:06 PM
Selenium	ND	0.0025		mg/L	2.5	9/6/2012 6:53:06 PM
Uranium	ND	0.0025		mg/L	2.5	9/13/2012 1:45:14 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:15:00 AM
Lab ID: 1208B34-004
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	9/12/2012 10:01:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Acenaphthylene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Aniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Azobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benz(a)anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(a)pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Benzoic acid	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Benzyl alcohol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Butyl benzyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Carbazole	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chloroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Chloronaphthalene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Chlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Chrysene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Di-n-butyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Di-n-octyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dibenzofuran	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Diethyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Dimethyl phthalate	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dichlorophenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dimethylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
2,4-Dinitrophenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-004 **Matrix:** AQUEOUS

Client Sample ID: RW-6
Collection Date: 8/23/2012 10:15:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Fluoranthene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Fluorene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorobutadiene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Hexachloroethane	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Isophorone	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1-Methylnaphthalene	490	50		µg/L	5	8/31/2012 4:03:50 PM
2-Methylnaphthalene	650	50		µg/L	5	8/31/2012 4:03:50 PM
2-Methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3+4-Methylphenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Naphthalene	550	50		µg/L	5	8/31/2012 4:03:50 PM
2-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
3-Nitroaniline	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Nitroaniline	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Nitrobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
4-Nitrophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pentachlorophenol	ND	20		µg/L	1	8/31/2012 1:05:53 PM
Phenanthrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Phenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pyrene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Pyridine	ND	10		µg/L	1	8/31/2012 1:05:53 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	8/31/2012 1:05:53 PM
Surr: 2,4,6-Tribromophenol	104	44.2-126		%REC	1	8/31/2012 1:05:53 PM
Surr: 2-Fluorobiphenyl	79.9	37-114		%REC	1	8/31/2012 1:05:53 PM
Surr: 2-Fluorophenol	25.2	23.4-98		%REC	1	8/31/2012 1:05:53 PM
Surr: 4-Terphenyl-d14	79.5	41.3-116		%REC	1	8/31/2012 1:05:53 PM
Surr: Nitrobenzene-d5	0	39.5-118	S	%REC	1	8/31/2012 1:05:53 PM
Surr: Phenol-d5	55.9	20.9-95.9		%REC	1	8/31/2012 1:05:53 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	740	50		µg/L	50	8/30/2012 3:22:54 AM
Toluene	52	50		µg/L	50	8/30/2012 3:22:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: RW-6
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/23/2012 10:15:00 AM
Lab ID: 1208B34-004 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Ethylbenzene	400	50		µg/L	50	8/30/2012 3:22:54 AM
Methyl tert-butyl ether (MTBE)	73	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,4-Trimethylbenzene	380	50		µg/L	50	8/30/2012 3:22:54 AM
1,3,5-Trimethylbenzene	170	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Naphthalene	580	100		µg/L	50	8/30/2012 3:22:54 AM
1-Methylnaphthalene	220	200		µg/L	50	8/30/2012 3:22:54 AM
2-Methylnaphthalene	360	200		µg/L	50	8/30/2012 3:22:54 AM
Acetone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Bromobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromodichloromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromoform	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Bromomethane	ND	150		µg/L	50	8/30/2012 3:22:54 AM
2-Butanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Carbon disulfide	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Carbon Tetrachloride	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chloroethane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Chloroform	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Chloromethane	ND	150		µg/L	50	8/30/2012 3:22:54 AM
2-Chlorotoluene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
4-Chlorotoluene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
cis-1,2-DCE	ND	50		µg/L	50	8/30/2012 3:22:54 AM
cis-1,3-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Dibromochloromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Dibromomethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,3-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,4-Dichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Dichlorodifluoromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloroethene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2-Dichloropropane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,3-Dichloropropane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
2,2-Dichloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
1,1-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Hexachlorobutadiene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
2-Hexanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Isopropylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
4-Isopropyltoluene	ND	50		µg/L	50	8/30/2012 3:22:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-004 **Matrix:** AQUEOUS

Client Sample ID: RW-6
Collection Date: 8/23/2012 10:15:00 AM
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
4-Methyl-2-pentanone	ND	500		µg/L	50	8/30/2012 3:22:54 AM
Methylene Chloride	ND	150		µg/L	50	8/30/2012 3:22:54 AM
n-Butylbenzene	ND	150		µg/L	50	8/30/2012 3:22:54 AM
n-Propylbenzene	74	50		µg/L	50	8/30/2012 3:22:54 AM
sec-Butylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Styrene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
tert-Butylbenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Tetrachloroethene (PCE)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
trans-1,2-DCE	ND	50		µg/L	50	8/30/2012 3:22:54 AM
trans-1,3-Dichloropropene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,1-Trichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,1,2-Trichloroethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Trichloroethene (TCE)	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Trichlorofluoromethane	ND	50		µg/L	50	8/30/2012 3:22:54 AM
1,2,3-Trichloropropane	ND	100		µg/L	50	8/30/2012 3:22:54 AM
Vinyl chloride	ND	50		µg/L	50	8/30/2012 3:22:54 AM
Xylenes, Total	1600	75		µg/L	50	8/30/2012 3:22:54 AM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: Dibromofluoromethane	106	70-130		%REC	50	8/30/2012 3:22:54 AM
Surr: Toluene-d8	93.4	70-130		%REC	50	8/30/2012 3:22:54 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date: 8/24/2012
Lab ID: 1208B34-005
Matrix: AQUEOUS
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:21:39 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:21:39 AM
Acetone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 4:21:39 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-005 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 8/24/2012
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 4:21:39 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 4:21:39 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 4:21:39 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 4:21:39 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 4:21:39 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	8/30/2012 4:21:39 AM
Surr: Toluene-d8	96.5	70-130		%REC	1	8/30/2012 4:21:39 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 3rd QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1208B34-006 **Matrix:** AQUEOUS **Received Date:** 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Toluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Ethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Naphthalene	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:50:53 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	8/30/2012 4:50:53 AM
Acetone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Bromobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromodichloromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromoform	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Bromomethane	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
2-Butanone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Carbon disulfide	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chloroethane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Chloroform	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Chloromethane	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
2-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Chlorotoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
cis-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Dibromochloromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Dibromomethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
2-Hexanone	ND	10		µg/L	1	8/30/2012 4:50:53 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd QTR 2012 Groundwater Sampling
Lab ID: 1208B34-006 **Matrix:** AQUEOUS

Client Sample ID: Trip Blank
Collection Date:
Received Date: 8/24/2012 3:40:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	8/30/2012 4:50:53 AM
Methylene Chloride	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
n-Butylbenzene	ND	3.0		µg/L	1	8/30/2012 4:50:53 AM
n-Propylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
sec-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Styrene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
tert-Butylbenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
trans-1,2-DCE	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/30/2012 4:50:53 AM
Vinyl chloride	ND	1.0		µg/L	1	8/30/2012 4:50:53 AM
Xylenes, Total	ND	1.5		µg/L	1	8/30/2012 4:50:53 AM
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: 4-Bromofluorobenzene	94.2	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: Dibromofluoromethane	98.8	70-130		%REC	1	8/30/2012 4:50:53 AM
Surr: Toluene-d8	94.3	70-130		%REC	1	8/30/2012 4:50:53 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151260** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155926** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **155927** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Calcium	52	1.0	50.00	0	104	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0.002590	99.7	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	101	85	115			
Potassium	51	1.0	50.00	0	102	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	52	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	99.0	85	115			

Sample ID **1208996-003DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.65	0.0020	0.5000	0.1271	105	70	130			
Cadmium	0.53	0.0020	0.5000	0	105	70	130			
Chromium	0.52	0.0060	0.5000	0.001070	103	70	130			
Copper	0.56	0.0060	0.5000	0	112	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156329** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.56	0.020	0.5000	0.04012	104	70	130			
Lead	0.51	0.0050	0.5000	0	102	70	130			
Magnesium	69	1.0	50.00	13.55	112	70	130			
Manganese	0.53	0.0020	0.5000	0.0006300	106	70	130			
Potassium	56	1.0	50.00	2.284	108	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Sodium	83	1.0	50.00	27.29	111	70	130			
Zinc	0.52	0.010	0.5000	0.01358	101	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.1271	101	70	130	3.05	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	2.73	20	
Chromium	0.50	0.0060	0.5000	0.001070	99.7	70	130	3.48	20	
Copper	0.55	0.0060	0.5000	0	110	70	130	1.68	20	
Iron	0.56	0.020	0.5000	0.04012	103	70	130	0.424	20	
Lead	0.50	0.0050	0.5000	0	99.2	70	130	2.65	20	
Magnesium	68	1.0	50.00	13.55	109	70	130	1.63	20	
Manganese	0.52	0.0020	0.5000	0.0006300	103	70	130	2.93	20	
Potassium	55	1.0	50.00	2.284	106	70	130	1.53	20	
Silver	0.099	0.0050	0.1000	0	99.4	70	130	3.30	20	
Sodium	82	1.0	50.00	27.29	109	70	130	0.982	20	
Zinc	0.50	0.010	0.5000	0.01358	96.5	70	130	4.24	20	

Sample ID **1208996-003DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156332** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	370	5.0	250.0	66.77	122	70	130			

Sample ID **1208996-003DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156333** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	330	5.0	250.0	66.77	106	70	130	11.7	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156418** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.001060	97.0	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.3	85	115			
Calcium	50	1.0	50.00	0	100	85	115			
Chromium	0.48	0.0060	0.5000	0	95.5	85	115			
Copper	0.52	0.0060	0.5000	0	104	85	115			
Iron	0.50	0.020	0.5000	0.003080	99.0	85	115			
Lead	0.47	0.0050	0.5000	0	94.1	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0.001260	98.6	85	115			
Sodium	51	1.0	50.00	0	103	85	115			
Zinc	0.46	0.010	0.5000	0	92.6	85	115			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5457**	RunNo: **5457**
Prep Date:	Analysis Date: **9/12/2012**	SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.007580	89.5	70	130			
Cadmium	0.46	0.0020	0.5000	0.001310	92.5	70	130			
Chromium	0.44	0.0060	0.5000	0	88.1	70	130			
Copper	0.55	0.0060	0.5000	0.04934	99.8	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.47	0.020	0.5000	0.003920	92.6	70	130			
Magnesium	78	1.0	50.00	28.77	99.1	70	130			
Potassium	50	1.0	50.00	1.179	97.1	70	130			
Silver	0.093	0.0050	0.1000	0	93.0	70	130			
Sodium	60	1.0	50.00	9.466	102	70	130			
Zinc	0.90	0.010	0.5000	0.5237	75.6	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.007580	88.6	70	130	0.945	20	
Cadmium	0.46	0.0020	0.5000	0.001310	91.1	70	130	1.54	20	
Chromium	0.43	0.0060	0.5000	0	86.4	70	130	1.96	20	
Copper	0.55	0.0060	0.5000	0.04934	99.3	70	130	0.477	20	
Iron	0.46	0.020	0.5000	0.003920	91.1	70	130	1.62	20	
Magnesium	78	1.0	50.00	28.77	98.2	70	130	0.598	20	
Potassium	49	1.0	50.00	1.179	96.4	70	130	0.773	20	
Silver	0.093	0.0050	0.1000	0	93.1	70	130	0.150	20	
Sodium	60	1.0	50.00	9.466	101	70	130	0.803	20	
Zinc	0.89	0.010	0.5000	0.5237	72.8	70	130	1.59	20	

Sample ID **1208A83-002AMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130			
Manganese	4.3	0.010	2.500	1.779	99.4	70	130			

Sample ID **1208A83-002AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R5457** RunNo: **5457**

Prep Date: Analysis Date: **9/12/2012** SeqNo: **156424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	250.0	97.93	101	70	130	0.395	20	
Manganese	4.3	0.010	2.500	1.779	102	70	130	1.46	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151199** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-3584**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3584**	RunNo: **5311**
Prep Date: **9/4/2012**	Analysis Date: **9/5/2012**	SeqNo: **151200** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.7	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.2	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5435**
Prep Date: **9/4/2012**	Analysis Date: **9/11/2012**	SeqNo: **155086** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Sample ID **LCS-3584**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **3584**	RunNo: **5435**
Prep Date: **9/4/2012**	Analysis Date: **9/11/2012**	SeqNo: **155087** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.096	0.0050	0.1000	0	96.4	85	115			

Sample ID **1208B37-002DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **3584**	RunNo: **5435**
Prep Date: **9/4/2012**	Analysis Date: **9/11/2012**	SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155140** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	100	70	130			
Chromium	0.47	0.0060	0.5000	0	93.5	70	130			
Copper	0.56	0.0060	0.5000	0	111	70	130			
Lead	0.48	0.0050	0.5000	0.003250	94.7	70	130			
Silver	0.024	0.0050	0.1000	0	24.1	70	130			S
Zinc	0.46	0.010	0.5000	0.001840	91.9	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155141** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.1	70	130	1.07	20	
Chromium	0.46	0.0060	0.5000	0	92.4	70	130	1.20	20	
Copper	0.56	0.0060	0.5000	0	111	70	130	0.121	20	
Lead	0.48	0.0050	0.5000	0.003250	94.4	70	130	0.332	20	
Silver	0.025	0.0050	0.1000	0	25.1	70	130	3.78	20	S
Zinc	0.45	0.010	0.5000	0.001840	90.3	70	130	1.70	20	

Sample ID **1208B37-002DMS** SampType: **MS** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155164** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.6	70	130			

Sample ID **1208B37-002DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Total Metals**

Client ID: **BatchQC** Batch ID: **3584** RunNo: **5435**

Prep Date: **9/4/2012** Analysis Date: **9/11/2012** SeqNo: **155165** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	1.6	0.010	0.5000	1.180	87.1	70	130	0.155	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5508**
Prep Date: **9/4/2012**	Analysis Date: **9/13/2012**	SeqNo: **157391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Sample ID **MB-3888**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **3888**	RunNo: **5786**
Prep Date: **9/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166267** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208476-008EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152349** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.029	0.0010	0.02500	0	117	70	130			

Sample ID **1208654-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152351** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.16	0.0050	0.1250	0.03618	99.4	70	130			

Sample ID **1208944-008AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152364** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0002792	97.9	70	130			
Selenium	0.029	0.0010	0.02500	0.004276	97.4	70	130			
Uranium	0.034	0.0010	0.02500	0.008442	103	70	130			

Sample ID **1208A83-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152381** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0.001591	98.2	70	130			
Uranium	0.027	0.0010	0.02500	0.0009453	103	70	130			

Sample ID **1208B35-001DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.12	0.0050	0.1250	0.003821	93.6	70	130			
Selenium	0.11	0.0050	0.1250	0.007249	83.7	70	130			
Uranium	0.23	0.0050	0.1250	0.1005	107	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152417** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			
Uranium	0.024	0.0010	0.02500	0	97.0	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152420** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
enic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R5350**	RunNo: **5350**
Prep Date:	Analysis Date: **9/6/2012**	SeqNo: **152421** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5392**
Prep Date: **9/4/2012**	Analysis Date: **9/6/2012**	SeqNo: **153679** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **MB-3584**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3584**	RunNo: **5508**
Prep Date: **9/4/2012**	Analysis Date: **9/13/2012**	SeqNo: **157424** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Sample ID **MB-3888**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **3888**	RunNo: **5786**
Prep Date: **9/24/2012**	Analysis Date: **9/26/2012**	SeqNo: **166261** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB-3705**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156146** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-3705**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.9	80	120			

Sample ID **1208A83-001BMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156149** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.2	75	125			

Sample ID **1208A83-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **3705**	RunNo: **5464**
Prep Date: **9/11/2012**	Analysis Date: **9/12/2012**	SeqNo: **156150** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.517	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208B39-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145633** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.5	76.6	110			
Chloride	9.9	0.50	5.000	4.684	105	87.8	111			
Bromide	2.5	0.10	2.500	0.09394	94.3	83.3	107			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	97.0	74.5	115			
Sulfate	29	0.50	10.00	18.80	104	84.6	122			

Sample ID **1208B39-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145634** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7261	87.9	76.6	110	0.136	20	
Chloride	9.8	0.50	5.000	4.684	103	87.8	111	1.03	20	
Bromide	2.4	0.10	2.500	0.09394	92.3	83.3	107	2.02	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.4	74.5	115	1.64	20	
Sulfate	29	0.50	10.00	18.80	100	84.6	122	1.21	20	

Sample ID **1208B66-001BMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145645** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	90.8	76.6	110			
Chloride	18	0.50	5.000	11.71	117	87.8	111			S
Bromide	2.2	0.10	2.500	0	89.4	83.3	107			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	101	74.5	115			

Sample ID **1208B66-001BMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**

Client ID: **BatchQC** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145646** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	1.973	95.3	76.6	110	0.921	20	
Chloride	18	0.50	5.000	11.71	119	87.8	111	0.300	20	S
Bromide	2.2	0.10	2.500	0	89.1	83.3	107	0.390	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	74.5	115	0.717	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBW** Batch ID: **R5125** RunNo: **5125**

Prep Date: Analysis Date: **8/27/2012** SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145648** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS-b**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5125**	RunNo: **5125**
Prep Date:	Analysis Date: **8/27/2012**	SeqNo: **145649** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Bromide	2.4	0.10	2.500	0	94.3	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	100	90	110			
Sulfate	9.5	0.50	10.00	0	95.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148465** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148466** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Sample ID **1208C74-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148530** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	88.6	110			

fiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208C74-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148531** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.9	88.6	110	0.508	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.6	90	110			

Sample ID **1208C70-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148543** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	88.6	110			

Sample ID **1208C70-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5224**	RunNo: **5224**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **148544** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.6	0.20	3.500	0	103	88.6	110	0.0497	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147638** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
[illegible]omethane	ND	3.0								
[illegible]anone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147638** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Toluene	21	1.0	20.00	0	103	80	120			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5192** RunNo: **5192**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5192** RunNo: **5192**

Prep Date: Analysis Date: **8/29/2012** SeqNo: **147640** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.7	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	87.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	86.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.5	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.5	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.6	70	130			
r: Toluene-d8	10		10.00		103	70	130			

Sample ID **1208b32-001ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5192** RunNo: **5192**

Prep Date: Analysis Date: **8/30/2012** SeqNo: **147829** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.3	66.8	128			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.9	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	87.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1208b32-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R5192** RunNo: **5192**

Prep Date: Analysis Date: **8/30/2012** SeqNo: **147831** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.5	66.8	128	0.291	16.7	
Toluene	21	1.0	20.00	0	103	70	130	4.19	18.7	
Chlorobenzene	20	1.0	20.00	0	102	70	130	0.235	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.1	70	130	2.39	16.7	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208b32-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/30/2012**	SeqNo: **147831** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130	1.31	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		98.9	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147929** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147929** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	9.8		10.00		98.0	70	130			

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150896** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R5301** RunNo: **5301**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150896** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcsb** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R5301** RunNo: **5301**

Prep Date: Analysis Date: **9/4/2012** SeqNo: **150901** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	20	1.0	20.00	0	98.4	80	120			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Trichloroethene (TCE)	24	1.0	20.00	0	118	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150901** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.2		10.00		91.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147886** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
1,2-Dibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
omethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147886** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		100	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **LCSW**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147888** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.0	73.7	122			
Toluene	21	1.0	20.00	0	103	80	120			
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.4	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.8		10.00		97.9	70	130			

Sample ID **1208981-001AMS**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **BatchQC**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147934** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	37	2.0	40.00	0.8444	91.3	66.8	128			
Chlorobenzene	38	2.0	40.00	0	94.0	70	130			
1,1-Dichloroethene	38	2.0	40.00	0	96.1	70	130			
Toluene	41	2.0	40.00	0	102	70	130			
Trichloroethene (TCE)	35	2.0	40.00	0	87.5	70	130			
Surr: 1,2-Dichloroethane-d4	18		20.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	20		20.00		102	70	130			
Surr: Dibromofluoromethane	19		20.00		95.3	70	130			
Surr: Toluene-d8	19		20.00		94.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208981-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **BatchQC**	Batch ID: **R5192**	RunNo: **5192**
Prep Date:	Analysis Date: **8/29/2012**	SeqNo: **147936** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	40	2.0	40.00	0.8444	98.8	66.8	128	7.78	16.7	
Chlorobenzene	36	2.0	40.00	0	89.2	70	130	5.30	19.5	
1,1-Dichloroethene	38	2.0	40.00	0	96.2	70	130	0.0583	16.7	
Toluene	37	2.0	40.00	0	91.9	70	130	10.5	18.7	
Trichloroethene (TCE)	35	2.0	40.00	0	87.6	70	130	0.0994	17.5	
Surr: 1,2-Dichloroethane-d4	19		20.00		95.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	19		20.00		95.3	70	130	0	0	
Surr: Dibromofluoromethane	21		20.00		103	70	130	0	0	
Surr: Toluene-d8	18		20.00		90.1	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150926** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
ibromoethane (EDB)	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
Acetone	ND	10								
Acrylonitrile	ND	10								
Benzene	ND	1.0								
Bromochloromethane	ND	2.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,1-Dichloroethane	ND	1.0								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **PBW**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150926** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
Ethylbenzene	ND	1.0								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	1.0								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
Toluene	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **LCSW**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150927** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Toluene	20	1.0	20.00	0	98.4	80	120			
Trichloroethene (TCE)	24	1.0	20.00	0	118	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.5	70	130			
Surr: Toluene-d8	9.2		10.00		91.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **1208d42-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **BatchQC**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150928** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.9	66.8	128			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.6	70	130			
Toluene	21	1.0	20.00	0	105	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.1	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.6	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Sample ID **1208d42-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: Volatiles, Table I**
Client ID: **BatchQC**	Batch ID: **R5301**	RunNo: **5301**
Prep Date:	Analysis Date: **9/4/2012**	SeqNo: **150929** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	66.8	128	0.988	16.7	
obenzene	19	1.0	20.00	0	97.2	70	130	3.42	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	97.7	70	130	3.29	16.7	
Toluene	19	1.0	20.00	0	94.9	70	130	9.86	18.7	
Trichloroethene (TCE)	19	1.0	20.00	0	93.8	70	130	5.89	17.5	
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130	0	0	
Surr: Dibromofluoromethane	9.9		10.00		99.0	70	130	0	0	
Surr: Toluene-d8	9.2		10.00		92.4	70	130	0	0	

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

all Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **mb-3504**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147346** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
oaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.0	44.2	126			
Surr: 2-Fluorobiphenyl	60		100.0		60.3	37	114			
Surr: 2-Fluorophenol	94		200.0		47.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.3	116			
Surr: Nitrobenzene-d5	59		100.0		58.9	39.5	118			
Surr: Phenol-d5	75		200.0		37.5	20.9	95.9			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1208B34**

03-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd QTR 2012 Groundwater Sampling

Sample ID **lcs-3504**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147347** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.7	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	80.7	35.5	108			
2-Chlorophenol	160	10	200.0	0	78.0	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.0	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.2	44.7	112			
N-Nitrosodi-n-propylamine	78	10	100.0	0	78.2	38.5	105			
4-Nitrophenol	120	10	200.0	0	58.1	11.6	73.1			
Pentachlorophenol	180	20	200.0	0	88.2	20.2	93			
Phenol	99	10	200.0	0	49.4	23	66.1			
Pyrene	77	10	100.0	0	77.4	40.1	101			
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	37.7	99.1			
Surr: 2,4,6-Tribromophenol	210		200.0		105	44.2	126			
Surr: 2-Fluorobiphenyl	76		100.0		75.7	37	114			
Surr: 2-Fluorophenol	110		200.0		54.0	23.4	98			
Surr: 4-Terphenyl-d14	82		100.0		82.5	41.3	116			
Surr: Nitrobenzene-d5	80		100.0		80.2	39.5	118			
Surr: Phenol-d5	96		200.0		48.2	20.9	95.9			

Sample ID **lcsd-3504**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **3504**	RunNo: **5185**
Prep Date: **8/28/2012**	Analysis Date: **8/29/2012**	SeqNo: **147348** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	38.2	99.4	19.0	20	
4-Chloro-3-methylphenol	120	10	200.0	0	60.9	35.5	108	27.9	20	R
2-Chlorophenol	120	10	200.0	0	57.9	29.8	106	29.6	20	R
1,4-Dichlorobenzene	44	10	100.0	0	44.0	32.6	91.5	38.6	20	R
2,4-Dinitrotoluene	78	10	100.0	0	78.0	44.7	112	16.6	20	
N-Nitrosodi-n-propylamine	63	10	100.0	0	63.2	38.5	105	21.3	20	R
4-Nitrophenol	94	10	200.0	0	46.9	11.6	73.1	21.3	20	R
Pentachlorophenol	130	20	200.0	0	64.8	20.2	93	30.6	20	R
Phenol	71	10	200.0	0	35.7	23	66.1	32.2	20	R
Pyrene	65	10	100.0	0	65.2	40.1	101	17.0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	56.0	37.7	99.1	23.8	20	R
Surr: 2,4,6-Tribromophenol	150		200.0		74.9	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		64.7	37	114	0	0	
Surr: 2-Fluorophenol	91		200.0		45.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	68		100.0		67.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	62		100.0		62.5	39.5	118	0	0	
Surr: Phenol-d5	76		200.0		38.0	20.9	95.9	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1208B34

Received by/date: CM 08/24/12

Logged By: Anne Thorne 8/24/2012 3:40:00 PM Anne Thorne

Completed By: Anne Thorne 8/27/2012 Anne Thorne

Reviewed By: 8/27/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

12 AT 08/27/12

# of preserved bottles checked for pH: 8 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other_____
☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush_____

Project Name: 3rd QTR 2012 Groundwater Sampling

Project #: Annual Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208834	BTEX + MTBE + TMB's (8021)	TPH (Gas only)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
8/23/12	1050	GW	RW-1			-001	X	X	X	X
8/24/12	0830	GW	RW-2			-002	X	X	X	X
8/23/12	1000	GW	RW-5			-003	X	X	X	X
8/23/12	1015	GW	RW-6			-004	X	X	X	X
8/24/12		W	Field Blank			-005	X			
8/24/12	—	W	Trip Blank			-006	X			

Date	Time	Relinquished by:	Received by:	Date	Time
8/24/12	1540				
Date:	Time:	Relinquished by:	Received by:	08/24/12	1540

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 15, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: Soil W of Pond 8

OrderNo.: 1210161

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/3/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210161**
Date Reported: **10/15/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-001 **Matrix:** SOIL

Client Sample ID: D-S
Collection Date: 9/27/2012 2:00:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:57:56 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 1:57:56 PM
Surr: DNOP	82.7	77.6-140		%REC	1	10/4/2012 1:57:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 1:51:35 PM
Chloride	13000	750		mg/Kg	500	10/9/2012 9:24:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Calcium	30000	250		mg/Kg	10	10/10/2012 10:08:30 AM
Magnesium	7300	130		mg/Kg	5	10/9/2012 10:09:34 AM
Potassium	2400	250		mg/Kg	5	10/9/2012 10:09:34 AM
Sodium	4900	130		mg/Kg	5	10/9/2012 10:09:34 AM
SM4500-H+B: PH						Analyst: **KS**
pH	7.59	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-002 **Matrix:** SOIL

Client Sample ID: C-6
Collection Date: 9/27/2012 2:05:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/4/2012 8:30:10 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/4/2012 8:30:10 AM
Surr: DNOP	86.9	77.6-140		%REC	1	10/4/2012 8:30:10 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	20	6.0		mg/Kg	20	10/8/2012 2:16:25 PM
Chloride	2200	150		mg/Kg	100	10/9/2012 9:36:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Calcium	18000	120		mg/Kg	5	10/9/2012 10:12:05 AM
Magnesium	11000	120		mg/Kg	5	10/9/2012 10:12:05 AM
Potassium	6000	250		mg/Kg	5	10/9/2012 10:12:05 AM
Sodium	2700	120		mg/Kg	5	10/9/2012 10:12:05 AM
SM4500-H+B: PH						Analyst: **KS**
pH	8.04	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-003 **Matrix:** SOIL

Client Sample ID: G-S
Collection Date: 9/27/2012 2:15:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:35:55 PM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/4/2012 1:35:55 PM
Surr: DNOP	105	77.6-140		%REC	1	10/4/2012 1:35:55 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 3:11:30 PM
Chloride	24000	1500		mg/Kg	1000	10/9/2012 9:49:13 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Calcium	23000	130		mg/Kg	5	10/9/2012 10:14:32 AM
Magnesium	7000	130		mg/Kg	5	10/9/2012 10:14:32 AM
Potassium	2100	250		mg/Kg	5	10/9/2012 10:14:32 AM
Sodium	9800	130		mg/Kg	5	10/9/2012 10:14:32 AM
SM4500-H+B: PH						Analyst: **KS**
pH	7.53	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1210161**
Date Reported: **10/15/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-004 **Matrix:** SOIL

Client Sample ID: F-6
Collection Date: 9/27/2012 2:25:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 11:01:33 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 11:01:33 AM
Surr: DNOP	98.9	77.6-140		%REC	1	10/4/2012 11:01:33 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:01:09 PM
Chloride	46000	1500		mg/Kg	1000	10/9/2012 10:01:38 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Calcium	24000	120		mg/Kg	5	10/9/2012 10:17:05 AM
Magnesium	9500	120		mg/Kg	5	10/9/2012 10:17:05 AM
Potassium	2900	250		mg/Kg	5	10/9/2012 10:17:05 AM
Sodium	11000	120		mg/Kg	5	10/9/2012 10:17:05 AM
SM4500-H+B: PH						Analyst: **KS**
pH	7.33	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1210161**
Date Reported: **10/15/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-005 **Matrix:** SOIL

Client Sample ID: B-6
Collection Date: 9/27/2012 2:35:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 6:00:52 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/7/2012 6:00:52 AM
Surr: DNOP	91.2	77.6-140		%REC	1	10/7/2012 6:00:52 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:13:34 PM
Chloride	5800	300		mg/Kg	200	10/9/2012 10:14:03 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Calcium	16000	120		mg/Kg	5	10/9/2012 10:29:37 AM
Magnesium	11000	120		mg/Kg	5	10/9/2012 10:29:37 AM
Potassium	6700	250		mg/Kg	5	10/9/2012 10:29:37 AM
Sodium	3100	120		mg/Kg	5	10/9/2012 10:29:37 AM
SM4500-H+B: PH						Analyst: **KS**
pH	8.05	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-006 **Matrix:** SOIL

Client Sample ID: E-6
Collection Date: 9/27/2012 2:50:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 1:14:06 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/4/2012 1:14:06 PM
Surr: DNOP	99.3	77.6-140		%REC	1	10/4/2012 1:14:06 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:25:59 PM
Chloride	25000	1500		mg/Kg	1000	10/9/2012 10:26:28 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Calcium	26000	250		mg/Kg	10	10/10/2012 10:10:57 AM
Magnesium	7400	130		mg/Kg	5	10/9/2012 10:33:43 AM
Potassium	2600	250		mg/Kg	5	10/9/2012 10:33:43 AM
Sodium	13000	130		mg/Kg	5	10/9/2012 10:33:43 AM
SM4500-H+B: PH						Analyst: **KS**
pH	7.58	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: Soil W of Pond 8
Lab ID: 1210161-007 **Matrix:** SOIL

Client Sample ID: A-6
Collection Date: 9/27/2012 3:15:00 PM
Received Date: 10/3/2012 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/4/2012 8:51:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/4/2012 8:51:45 AM
Surr: DNOP	99.7	77.6-140		%REC	1	10/4/2012 8:51:45 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	6.0		mg/Kg	20	10/8/2012 4:38:23 PM
Chloride	23000	1500		mg/Kg	1000	10/9/2012 10:38:53 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Calcium	16000	130		mg/Kg	5	10/9/2012 10:36:16 AM
Magnesium	10000	130		mg/Kg	5	10/9/2012 10:36:16 AM
Potassium	5700	250		mg/Kg	5	10/9/2012 10:36:16 AM
Sodium	14000	130		mg/Kg	5	10/9/2012 10:36:16 AM
SM4500-H+B: PH						Analyst: **KS**
pH	7.65	1.68		pH Units	1	10/12/2012 1:41:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210161**

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID **MB-4165**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **4165**	RunNo: **6064**							
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174669**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.30								

Sample ID **LCS-4165**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **4165**	RunNo: **6064**							
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174670**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.30	1.500	0	94.9	90	110			

Sample ID **MB-4165**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **4165**	RunNo: **6085**							
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175561**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID **LCS-4165**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **4165**	RunNo: **6085**							
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175562**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	101	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210161**

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID **MB-4052**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4052**	RunNo: **5924**
Prep Date: **10/2/2012**	Analysis Date: **10/3/2012**	SeqNo: **170722** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	77.6	140			

Sample ID **LCS-4052**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4052**	RunNo: **5924**
Prep Date: **10/2/2012**	Analysis Date: **10/3/2012**	SeqNo: **170784** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.4	52.6	130			
Surr: DNOP	4.1		5.000		82.4	77.6	140			

Sample ID **MB-4148**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4148**	RunNo: **6027**
Prep Date: **10/5/2012**	Analysis Date: **10/6/2012**	SeqNo: **173597** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		104	77.6	140			

Sample ID **LCS-4148**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4148**	RunNo: **6027**
Prep Date: **10/5/2012**	Analysis Date: **10/6/2012**	SeqNo: **173599** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.4	77.6	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210161**

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID **MB-4137**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174081** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.1		1.000		108	79.5	166			

Sample ID **LCS-4137**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174082** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.45		0.5000		90.2	79.5	166			

Sample ID **LCSD-4137**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174083** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.45		0.5000		90.8	79.5	166	0	0	

Sample ID **MB-4170**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174724** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	1.1		1.000		113	79.5	166			

Sample ID **LCS-4170**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174725** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.50		0.5000		101	79.5	166			

Sample ID **LCSD-4170**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174726** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	0.52		0.5000		103	79.5	166	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210161**

15-Oct-12

Client: Western Refining Southwest, Gallup

Project: Soil W of Pond 8

Sample ID **MB-4166**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4166**	RunNo: **6088**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175617** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	25								
Magnesium	ND	25								
Potassium	ND	50								
Sodium	ND	25								

Sample ID **LCS-4166**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4166**	RunNo: **6088**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175618** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	2600	25	2500	0	104	80	120			
Magnesium	2600	25	2500	0	105	80	120			
Potassium	2500	50	2500	0	101	80	120			
Sodium	2600	25	2500	0	104	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210161

Received by/date: LM 10/03/12

Logged By: **Michelle Garcia** 10/3/2012 7:30:00 AM — Michelle Garcia

Completed By: **Michelle Garcia** 10/3/2012 8:43:28 AM — Michelle Garcia

Reviewed By: MJ 10/03/12

Chain of Custody

1. Were seals intact?	Yes ☑	No ☐	Not Present ☐
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Alvin Dorsey Date: 10/03/12

By Whom: Ashley Gallegos Via: ☐ eMail ☑ Phone ☐ Fax ☐ In Person

Regarding: missing sample -005

Client Instructions: will receive 10/05/12 10/04/12

18. Additional remarks:

RECIEVED -005 ON 10/05/12 AT 0645 10/05/12

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505 - 722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard X Rush

Project Name:

Soil W of Pond 8

Project #:

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: X Yes ☐ No

Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1210161	8015B DRO	CATIONS/ANIONS F, Cl	6010C Metals Cations mg 10/03	PH	Air Bubbles (Y or N)
9/27/2012	1400	soil	D-S	3-4oz jar	None	-001	X	X	X	X	
9/27/2012	1405	soil	C-6	3-4oz jar	None	-002	X	X	X	X	
9/27/2012	1415	soil	G-S	3-4oz jar	None	-003	X	X	X	X	
9/27/2012	1425	soil	F-6	3-4oz jar	None	-004	X	X	X	X	
9/27/2012	1435	soil	B-6	3-4oz jar	None	-005	X	X	X	X	
9/27/2012	1450	soil	E-6	3-4oz jar	None	-006	X	X	X	X	
9/27/2012	1515	soil	A-6	3-4oz jar	None	-007	X	X	X	X	

Date	Time	Relinquished by:	Received by:	Date	Time
10-2-12	12:00			10/03/12	0736
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Verified analysis request with Cheryl. mg 10/03/12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505 - 722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard X Rush

Project Name:

Soil W of Pond 8

Project #:

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☑ Yes ☐ No

Sample Temperature: 7.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1210163	8015B DRO	CATIONS/ANIONS F, Cl	6010C Metals Cations	PH	8260											Air Bubbles (Y or N)
9/27/2012	1400	soil	D-S	3-4oz jar	None	-001	X	X	X	X												
9/27/2012	1405	soil	C-6	3-4oz jar	None	-002	X	X	X	X												
9/27/2012	1415	soil	G-S	3-4oz jar	None	-003	X	X	X	X												
9/27/2012	1425	soil	F-6	3-4oz jar	None	-004	X	X	X	X												
9/27/2012	1435	soil	B-6	3-4oz jar	None	-005	X	X	X	X												
9/27/2012	1450	soil	E-6	3-4oz jar	None	-006	X	X	X	X												
9/27/2012	1515	soil	A-6	3-4oz jar	None	-007	X	X	X	X												

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
10-2-12	12:00					
Date:	Time:	Relinquished by:	Received by:	10/13/12	0730	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 29, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 3rd Qtr

OrderNo.: 1210333

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/5/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210333**
Date Reported: **10/29/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd Qtr
Lab ID: 1210333-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 10/2/2012 9:15:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 5:22:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 5:22:24 PM
Surr: DNOP	118	79.5-166		%REC	1	10/8/2012 5:22:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/9/2012 12:27:40 AM
Surr: BFB	124	69.8-119	S	%REC	1	10/9/2012 12:27:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	10/9/2012 12:27:40 AM
Benzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Toluene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Xylenes, Total	ND	2.0		µg/L	1	10/9/2012 12:27:40 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 12:27:40 AM
Surr: 4-Bromofluorobenzene	117	69.7-152		%REC	1	10/9/2012 12:27:40 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.84	0.50		mg/L	5	10/5/2012 10:27:46 PM
Chloride	990	50		mg/L	100	10/13/2012 5:07:21 PM
Bromide	4.9	0.50		mg/L	5	10/5/2012 10:27:46 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/5/2012 10:27:46 PM
Sulfate	400	10		mg/L	20	10/5/2012 10:40:10 PM
Nitrate+Nitrite as N	20	1.0	*	mg/L	5	10/18/2012 3:43:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.11	0.0020		mg/L	1	10/8/2012 10:13:03 AM
Cadmium	ND	0.0020		mg/L	1	10/8/2012 10:13:03 AM
Calcium	51	1.0		mg/L	1	10/8/2012 10:13:03 AM
Chromium	ND	0.0060		mg/L	1	10/8/2012 10:13:03 AM
Copper	ND	0.0060		mg/L	1	10/8/2012 10:13:03 AM
Iron	3.2	0.10	*	mg/L	5	10/8/2012 10:16:54 AM
Lead	ND	0.0050		mg/L	1	10/9/2012 3:58:39 PM
Magnesium	7.5	1.0		mg/L	1	10/8/2012 10:13:03 AM
Manganese	0.14	0.0020	*	mg/L	1	10/8/2012 10:13:03 AM
Potassium	4.0	1.0		mg/L	1	10/8/2012 10:13:03 AM
Silver	ND	0.0050		mg/L	1	10/8/2012 10:13:03 AM
Sodium	890	10		mg/L	10	10/8/2012 12:16:42 PM
Zinc	0.035	0.010		mg/L	1	10/9/2012 3:58:39 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Barium	0.18	0.0020		mg/L	1	10/12/2012 2:00:04 PM
Cadmium	ND	0.0020		mg/L	1	10/12/2012 2:00:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd Qtr
Lab ID: 1210333-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 10/2/2012 9:15:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 200.7: TOTAL METALS						Analyst: **ELS**
Chromium	ND	0.0060		mg/L	1	10/12/2012 2:00:04 PM
Copper	ND	0.0060		mg/L	1	10/12/2012 2:00:04 PM
Iron	1.8	0.10	*	mg/L	5	10/12/2012 2:03:33 PM
Lead	ND	0.0050		mg/L	1	10/12/2012 2:00:04 PM
Manganese	0.11	0.0020	*	mg/L	1	10/12/2012 2:00:04 PM
Silver	ND	0.0050		mg/L	1	10/12/2012 2:00:04 PM
Zinc	0.020	0.010		mg/L	1	10/12/2012 2:00:04 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0040	0.0010		mg/L	1	10/11/2012 4:09:13 PM
Selenium	0.013	0.0010		mg/L	1	10/11/2012 4:09:13 PM
Uranium	0.038	0.0010	*	mg/L	1	10/11/2012 4:09:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0042	0.0025		mg/L	2.5	10/16/2012 6:02:22 PM
Selenium	0.016	0.0025		mg/L	2.5	10/19/2012 1:47:20 PM
Uranium	0.037	0.0025	*	mg/L	2.5	10/16/2012 6:02:22 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/15/2012 6:40:29 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Aniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Azobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Benzoic acid	ND	20		µg/L	1	10/11/2012 8:41:43 PM
Benzyl alcohol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Carbazole	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chloroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: NAPIS-3
Project: 3rd Qtr
Collection Date: 10/2/2012 9:15:00 AM
Lab ID: 1210333-001
Matrix: AQUEOUS
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Chrysene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dibenzofuran	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Diethyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Dimethyl phthalate	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Fluoranthene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Fluorene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Isophorone	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3+4-Methylphenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Naphthalene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pentachlorophenol	ND	20		µg/L	1	10/11/2012 8:41:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 3rd Qtr
Lab ID: 1210333-001 **Matrix:** AQUEOUS

Client Sample ID: NAPIS-3
Collection Date: 10/2/2012 9:15:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Phenanthrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Phenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pyrene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Pyridine	ND	10		µg/L	1	10/11/2012 8:41:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2012 8:41:43 PM
Surr: 2,4,6-Tribromophenol	84.0	44.2-126		%REC	1	10/11/2012 8:41:43 PM
Surr: 2-Fluorobiphenyl	75.1	37-114		%REC	1	10/11/2012 8:41:43 PM
Surr: 2-Fluorophenol	58.1	23.4-98		%REC	1	10/11/2012 8:41:43 PM
Surr: 4-Terphenyl-d14	65.5	41.3-116		%REC	1	10/11/2012 8:41:43 PM
Surr: Nitrobenzene-d5	77.8	39.5-118		%REC	1	10/11/2012 8:41:43 PM
Surr: Phenol-d5	47.3	20.9-95.9		%REC	1	10/11/2012 8:41:43 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.86	1.68	H	pH units	1	10/5/2012 6:09:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174476** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174477** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Calcium	53	1.0	50.00	0	105	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.54	0.020	0.5000	0.002550	107	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Sodium	51	1.0	50.00	0	102	85	115			

Sample ID **1210352-008AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174504** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.05952	108	70	130			
Cadmium	0.54	0.0020	0.5000	0	109	70	130			
Chromium	0.54	0.0060	0.5000	0.001400	108	70	130			
Copper	0.53	0.0060	0.5000	0	106	70	130			
Iron	0.60	0.020	0.5000	0.02583	114	70	130			
Magnesium	72	1.0	50.00	16.11	112	70	130			
Manganese	0.54	0.0020	0.5000	0.008360	106	70	130			
Potassium	58	1.0	50.00	3.952	108	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210352-008AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174504** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	102	70	130			
Sodium	71	1.0	50.00	16.66	109	70	130			

Sample ID **1210352-008AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174505** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.05952	109	70	130	1.49	20	
Cadmium	0.56	0.0020	0.5000	0	111	70	130	2.02	20	
Chromium	0.55	0.0060	0.5000	0.001400	110	70	130	1.83	20	
Copper	0.55	0.0060	0.5000	0	109	70	130	2.73	20	
Iron	0.58	0.020	0.5000	0.02583	110	70	130	3.40	20	
Magnesium	69	1.0	50.00	16.11	105	70	130	4.73	20	
Manganese	0.55	0.0020	0.5000	0.008360	108	70	130	2.09	20	
Potassium	56	1.0	50.00	3.952	103	70	130	4.26	20	
Silver	0.10	0.0050	0.1000	0	104	70	130	2.25	20	
[illegible]um	68	1.0	50.00	16.66	103	70	130	4.55	20	

Sample ID **1210352-008AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174507** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	360	5.0	250.0	96.81	106	70	130			

Sample ID **1210352-008AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6057**	RunNo: **6057**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **174508** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	380	5.0	250.0	96.81	112	70	130	4.19	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6122**	RunNo: **6122**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **176415** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6122**	RunNo: **6122**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **176416** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.51	0.0050	0.5000	0	101	85	115			
Zinc	0.50	0.010	0.5000	0	99.2	85	115			

Sample ID **1210352-008AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6122**	RunNo: **6122**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **176434** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.51	0.010	0.5000	0.009450	99.7	70	130			

Sample ID **1210352-008AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6122**	RunNo: **6122**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **176435** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0.009450	98.6	70	130	1.10	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210352-009BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **4246**	RunNo: **6212**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **179002** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.02413	100	70	130			
Cadmium	0.51	0.0020	0.5000	0	102	70	130			
Chromium	0.44	0.0060	0.5000	0	88.0	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Iron	0.72	0.020	0.5000	0.2063	103	70	130			
Manganese	0.50	0.0020	0.5000	0.001060	100	70	130			
Silver	0.037	0.0050	0.1000	0	36.7	70	130			S
Zinc	0.45	0.010	0.5000	0.007820	88.5	70	130			

Sample ID **1210352-009BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **4246**	RunNo: **6212**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **179003** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0.02413	101	70	130	0.406	20	
Cadmium	0.51	0.0020	0.5000	0	102	70	130	0.734	20	
Chromium	0.44	0.0060	0.5000	0	88.5	70	130	0.535	20	
[illegible]per	0.53	0.0060	0.5000	0	105	70	130	0.641	20	
[illegible]	0.73	0.020	0.5000	0.2063	104	70	130	0.688	20	
Manganese	0.51	0.0020	0.5000	0.001060	101	70	130	0.574	20	
Silver	0.039	0.0050	0.1000	0	38.8	70	130	5.43	20	S
Zinc	0.45	0.010	0.5000	0.007820	89.3	70	130	0.865	20	

Sample ID **MB-4246**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **4246**	RunNo: **6212**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **179023** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **LCS-4246**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **4246**	RunNo: **6212**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **179024** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.9	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Lead	0.50	0.0050	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210284-003DMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R6175**	RunNo: **6175**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.047	0.0010	0.02500	0.02279	97.9	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6175**	RunNo: **6175**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178034** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	106	85	115			
Selenium	0.027	0.0010	0.02500	0	109	85	115			
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6175**	RunNo: **6175**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178035** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0	111	85	115			
Uranium	0.027	0.0010	0.02500	0	110	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6175**	RunNo: **6175**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178036** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6175**	RunNo: **6175**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **MB-4246**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **4246**	RunNo: **6277**
Prep Date: **10/11/2012**	Analysis Date: **10/16/2012**	SeqNo: **180858** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Sample ID **MB-4246**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **4246**	RunNo: **6368**
Prep Date: **10/11/2012**	Analysis Date: **10/19/2012**	SeqNo: **183137** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **MB-4303**	SampType: **mblk**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4303**	RunNo: **6268**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180618** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4303**	SampType: **lcs**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4303**	RunNo: **6268**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180619** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.8	80	120			

Sample ID **1210352-007BMS**	SampType: **ms**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4303**	RunNo: **6268**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180639** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.6	75	125			

Sample ID **1210352-007BMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4303**	RunNo: **6268**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	75	125	0.680	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174302** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174303** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.5	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.5	90	110			
Sulfate	9.5	0.50	10.00	0	95.1	90	110			

Sample ID **1210360-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174315** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.56	0.10	0.5000	0	111	76.6	110			S
Bromide	2.5	0.10	2.500	0	99.1	83.3	107			
Phosphorus, Orthophosphate (As P	4.6	0.50	5.000	0	93.0	74.5	115			
Sulfate	27	0.50	10.00	15.93	115	84.6	122			

Sample ID **1210360-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174316** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.56	0.10	0.5000	0	113	76.6	110	1.59	20	S
Bromide	2.6	0.10	2.500	0	102	83.3	107	3.16	20	
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.2	74.5	115	2.34	20	
Sulfate	28	0.50	10.00	15.93	117	84.6	122	0.709	20	

Sample ID **1210367-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174334** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.1983	98.9	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.7	74.5	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210367-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6050**	RunNo: **6050**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174335** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.7	0.10	2.500	0.1983	98.9	83.3	107	0.0711	20	
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.2	74.5	115	0.539	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6225**	RunNo: **6225**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179335** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6225**	RunNo: **6225**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179336** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.2	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6320**	RunNo: **6320**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182026** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6320**	RunNo: **6320**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.8	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **MB-4170**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174724** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	79.5	166			

Sample ID **LCS-4170**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174725** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	75.1	74	157			
Surr: DNOP	0.50		0.5000		101	79.5	166			

Sample ID **LCSD-4170**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174726** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.0	1.0	5.000	0	80.9	74	157	7.55	23	
Surr: DNOP	0.52		0.5000		103	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175153** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.3	69.8	119			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175154** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.3	75.9	119			
Surr: BFB	16		20.00		81.2	69.8	119			

Sample ID **1210333-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS-3**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	63.5	131			
Surr: BFB	23		20.00		117	69.8	119			

Sample ID **1210333-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **NAPIS-3**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175203** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	95.0	63.5	131	2.99	16.7	
Surr: BFB	24		20.00		122	69.8	119	0	0	S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175210** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		93.8	69.7	152			

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175211** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	18	2.5	20.00	0	91.1	66.9	136			
Benzene	19	1.0	20.00	0	96.8	80	120			
Toluene	20	1.0	20.00	0	101	80	120			
Ethylbenzene	21	1.0	20.00	0	104	80	120			
Xylenes, Total	63	2.0	60.00	0	105	80	120			
1,2,4-Trimethylbenzene	19	1.0	20.00	0	96.4	74.3	117			
1,3,5-Trimethylbenzene	21	1.0	20.00	0	103	75.8	117			
Surr: 4-Bromofluorobenzene	25		20.00		124	69.7	152			

Sample ID **1210365-003AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175220** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	93.0	45.1	137			
Benzene	20	1.0	20.00	0	97.7	74.1	124			
Toluene	20	1.0	20.00	0.3000	99.0	75.2	124			
Ethylbenzene	21	1.0	20.00	0.2420	101	69	125			
Xylenes, Total	62	2.0	60.00	0.4080	102	73.1	126			
1,2,4-Trimethylbenzene	19	1.0	20.00	0.1940	92.4	63.1	121			
1,3,5-Trimethylbenzene	20	1.0	20.00	0.1500	98.2	60	133			
Surr: 4-Bromofluorobenzene	24		20.00		120	69.7	152			

Sample ID **1210365-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175221** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210365-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175221** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	93.1	45.1	137	0.0967	13.6	
Benzene	20	1.0	20.00	0	98.4	74.1	124	0.754	11.2	
Toluene	20	1.0	20.00	0.3000	98.6	75.2	124	0.399	11.9	
Ethylbenzene	20	1.0	20.00	0.2420	100	69	125	0.862	13.5	
Xylenes, Total	61	2.0	60.00	0.4080	101	73.1	126	1.08	13	
1,2,4-Trimethylbenzene	18	1.0	20.00	0.1940	90.6	63.1	121	1.95	14.7	
1,3,5-Trimethylbenzene	20	1.0	20.00	0.1500	97.5	60	133	0.710	14	
Surr: 4-Bromofluorobenzene	25		20.00		123	69.7	152	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **mb-4189**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178221** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **mb-4189**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178221** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
oaniline	ND	10								
roaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	66		100.0		66.3	37	114			
Surr: 2-Fluorophenol	140		200.0		70.4	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.8	41.3	116			
Surr: Nitrobenzene-d5	86		100.0		86.0	39.5	118			
Surr: Phenol-d5	100		200.0		52.1	20.9	95.9			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **lcs-4189**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178222** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	63.6	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	78.0	35.5	108			
2-Chlorophenol	140	10	200.0	0	69.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.1	32.6	91.5			
2,4-Dinitrotoluene	85	10	100.0	0	84.9	44.7	112			
N-Nitrosodi-n-propylamine	84	10	100.0	0	83.9	38.5	105			
4-Nitrophenol	100	10	200.0	0	50.2	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	62.2	20.2	93			
Phenol	84	10	200.0	0	42.1	23	66.1			
Pyrene	68	10	100.0	0	67.8	40.1	101			
1,2,4-Trichlorobenzene	65	10	100.0	0	64.8	37.7	99.1			
Surr: 2,4,6-Tribromophenol	180		200.0		89.1	44.2	126			
Surr: 2-Fluorobiphenyl	72		100.0		71.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.5	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.9	41.3	116			
Surr: Nitrobenzene-d5	79		100.0		78.7	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-4189**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178223** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.9	38.2	99.4	5.09	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.0	35.5	108	2.51	20	
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106	4.41	20	
1,4-Dichlorobenzene	58	10	100.0	0	57.9	32.6	91.5	3.73	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.8	44.7	112	3.45	20	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.7	38.5	105	8.99	20	
4-Nitrophenol	100	10	200.0	0	52.4	11.6	73.1	4.27	20	
Pentachlorophenol	120	20	200.0	0	60.4	20.2	93	2.94	20	
Phenol	89	10	200.0	0	44.4	23	66.1	5.20	20	
Pyrene	69	10	100.0	0	69.2	40.1	101	2.10	20	
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	37.7	99.1	3.29	20	
Surr: 2,4,6-Tribromophenol	170		200.0		82.5	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	68		100.0		67.8	37	114	0	0	
Surr: 2-Fluorophenol	120		200.0		59.0	23.4	98	0	0	
Surr: 4-Terphenyl-d14	69		100.0		68.7	41.3	116	0	0	
Surr: Nitrobenzene-d5	75		100.0		75.3	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.7	20.9	95.9	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210333**

29-Oct-12

Client: Western Refining Southwest, Gallup

Project: 3rd Qtr

Sample ID **1210312-001d dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R6035**	RunNo: **6035**							
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173977**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.74	1.68								H

Sample ID **1210333-001d dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **NAPIS-3**	Batch ID: **R6035**	RunNo: **6035**							
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173980**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.89	1.68								H

Sample ID **1210345-002b dup**	SampType: **dup**	TestCode: **SM4500-H+B: pH**							
Client ID: **BatchQC**	Batch ID: **R6035**	RunNo: **6035**							
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **184408**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.48	1.68								H

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1210333**

Received by/date: 10/05/12

Logged By: **Lindsay Mangin** 10/5/2012 6:45:00 AM

Completed By: **Lindsay Mangin** 10/5/2012 2:55:40 PM

Reviewed By: MG 10/05/12

Chain of Custody

1. Were seals intact?	Yes ✔	No	Not Present
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes	No ✔	NA
11. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			

Chain-of-Custody Record

Client: Western Refining Gallup Refinery

Mailing Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505 722 3833

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: 2nd 3rd QTR -

Project #: NAPIS-3

Project Manager: C Johnson

Sampler: C Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210333	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Total Metals	CATIONS/ANIONS			Air Bubbles (Y or N)
10/2/12	0915	H2O	NAPIS-3	VARIOUS	VARIOUS	-001	X		X								X	X	X			
					10/05/12																	

Date: 10/2/12 Time: 12:00 Relinquished by:

Date: Time: Relinquished by:

Received by: Date: 10/05/12 Time: 0645

Received by: Date: Time:

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 19, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2012 Semi-Annual-Ponds

OrderNo.: 1211301

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 11/7/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-1
Project: 2012 Semi-Annual-Ponds
Collection Date: 11/7/2012 8:00:00 AM
Lab ID: 1211301-001 **Matrix:** AQUEOUS **Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	520	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	10462	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:				
	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	P	Sample pH greater than 2	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-002 **Matrix:** AQUEOUS

Client Sample ID: EP-2
Collection Date: 11/7/2012 8:10:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	750	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-003 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/7/2012 8:20:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	390	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-004 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 11/7/2012 8:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	230	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-5
Project: 2012 Semi-Annual-Ponds
Collection Date: 11/7/2012 8:40:00 AM
Lab ID: 1211301-005 **Matrix:** AQUEOUS **Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	150	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-006 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 11/7/2012 8:50:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	10	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 Semi-Annual-Ponds
Collection Date: 11/7/2012 9:00:00 AM
Lab ID: 1211301-007 **Matrix:** AQUEOUS **Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	21	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211301**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-008 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 11/7/2012 9:10:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	10	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 Semi-Annual-Ponds
Collection Date: 11/7/2012 10:00:00 AM
Lab ID: 1211301-009
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	7.9	2.0		mg/L	1	11/13/2012 4:36:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<1	1.0		CFU/100ml	1	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-010 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 11/7/2012 9:20:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	130	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12A
Project: 2012 Semi-Annual-Ponds
Collection Date: 11/7/2012 9:30:00 AM
Lab ID: 1211301-011 **Matrix:** AQUEOUS **Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	150	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual-Ponds
Lab ID: 1211301-012 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 11/7/2012 9:40:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	310	2.0		mg/L	1	11/14/2012 6:07:00 AM
SM 9223B FECAL INDICATOR: E. COLI MPN						Analyst: **ECH**
E. Coli	<10	10		CFU/100ml	10	11/8/2012 4:30:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

ESC Sample # : L605528-01

Date Received : November 09, 2012
Description :

Site ID :

Sample ID : 1211301-001C EP-1

Project # :

Collected By :
Collection Date : 11/07/12 08:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1100	20.	mg/l	410.4	11/16/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-02

Sample ID : 1211301-002C EP-2

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 08:10

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1300	20.	mg/l	410.4	11/16/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-03

Sample ID : 1211301-003C EP-3

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 08:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	900	10.	mg/l	410.4	11/15/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-04

Sample ID : 1211301-004C EP-4

Site ID :

Collected By :
Collection Date : 11/07/12 08:30

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	880	10.	mg/l	410.4	11/15/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-05

Sample ID : 1211301-005C EP-5

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 08:40

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1000	10.	mg/l	410.4	11/15/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

ESC
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Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-06

Sample ID : 1211301-006C EP-6

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 08:50

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1000	20.	mg/l	410.4	11/16/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

Sample ID : 1211301-007C EP-7

Collected By :
Collection Date : 11/07/12 09:00

ESC Sample # : L605528-07

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	2300	200	mg/l	410.4	11/15/12	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-08

Sample ID : 1211301-0081C EP-8

Site ID :

Collected By :
Collection Date : 11/07/12 09:10

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	13000	200	mg/l	410.4	11/15/12	20

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-09

Sample ID : 1211301-009C EP-9

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 10:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	1400	50.	mg/l	410.4	11/15/12	5

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-10

Sample ID : 1211301-010C EP-11

Site ID :

Collected By :
Collection Date : 11/07/12 09:20

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	620	20.	mg/l	410.4	11/15/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
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Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-11

Sample ID : 1211301-011C EP-12A

Site ID :

Project # :

Collected By :
Collection Date : 11/07/12 09:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	650	20.	mg/l	410.4	11/15/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

November 16, 2012

Date Received : November 09, 2012
Description :

ESC Sample # : L605528-12

Sample ID : 1211301-012C EP-12B

Site ID :

Collected By :
Collection Date : 11/07/12 09:40

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	850	20.	mg/l	410.4	11/15/12	2

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
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Reported: 11/16/12 16:56 Printed: 11/16/12 16:57

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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L605528

November 16, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG623316	11/15/12 22:57
COD	< 10	mg/l			WG623159	11/15/12 14:50
COD	< 10	mg/l			WG623386	11/16/12 13:40
COD	< 10	mg/l			WG623387	11/16/12 14:03

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	0	0	0	5	L605552-02	WG623316
COD	mg/l	0	0	0	5	L605552-03	WG623316
COD	mg/l	20.0	18.0	10.5*	5	L605389-12	WG623159
COD	mg/l	17.0	17.0	0	5	L605389-13	WG623159
COD	mg/l	1200	1100	8.70*	5	L605528-01	WG623386
COD	mg/l	1200	1300	8.00*	5	L605528-02	WG623386
COD	mg/l	82.0	110.	29.2*	5	L605823-01	WG623387
COD	mg/l	880.	1000	12.8*	5	L605528-06	WG623387

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	222.	96.5	90-110	WG623316
COD	mg/l	230	233.	101.	90-110	WG623159
COD	mg/l	230	243.	106.	90-110	WG623386
COD	mg/l	230	231.	100.	90-110	WG623387

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	222.	222.	96.0	90-110	0	5	WG623316
COD	mg/l	227.	233.	99.0	90-110	2.61	5	WG623159
COD	mg/l	236.	243.	103.	90-110	2.92	5	WG623386
COD	mg/l	239.	231.	104.	90-110	3.40	5	WG623387

* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L605528

November 16, 2012

Analyte	Units	Matrix Spike MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	398.	5.00	400	98.2	90-110	L605552-01	WG623316
COD	mg/l	418.	15.0	400	101.	90-110	L605389-14	WG623159
COD	mg/l	444.	0	400	111.*	90-110	L605653-09	WG623386
COD	mg/l	514.	70.0	400	111.*	90-110	L605823-02	WG623387

Analyte	Units	Matrix Spike Duplicate MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	411.	398.	102.	90-110	3.21	5	L605552-01	WG623316
COD	mg/l	434.	418.	105.	90-110	3.76	5	L605389-14	WG623159
COD	mg/l	407.	444.	102.	90-110	8.70*	5	L605653-09	WG623386
COD	mg/l	471.	514.	100.	90-110	8.73*	5	L605823-02	WG623387

Batch number /Run number / Sample number cross reference

WG623316: R2444657: L605528-07 08 09 10 11 12
WG623159: R2445403: L605528-03 04 05
WG623386: R2445758: L605528-01 02
WG623387: R2445877: L605528-06

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211301**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID **MB-4735**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **4735**	RunNo: **6838**							
Prep Date: **11/8/2012**	Analysis Date: **11/13/2012**	SeqNo: **198060**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-4735**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **4735**	RunNo: **6838**							
Prep Date: **11/8/2012**	Analysis Date: **11/13/2012**	SeqNo: **198061**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-4735**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **4735**	RunNo: **6838**							
Prep Date: **11/8/2012**	Analysis Date: **11/13/2012**	SeqNo: **198062**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	88.8	80.3	103			

Sample ID **LCSD-4735**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **4735**	RunNo: **6838**							
Prep Date: **11/8/2012**	Analysis Date: **11/13/2012**	SeqNo: **198063**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	180	2.0	198.0	0	88.5	80.3	103	0.285	20	

Sample ID **1211250-001ADUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **4735**	RunNo: **6838**							
Prep Date: **11/8/2012**	Analysis Date: **11/13/2012**	SeqNo: **198065**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	830	2.0						0.180	20	

Sample ID **MB-4757**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **4757**	RunNo: **6874**							
Prep Date: **11/9/2012**	Analysis Date: **11/14/2012**	SeqNo: **198832**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-4757**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **4757**	RunNo: **6874**							
Prep Date: **11/9/2012**	Analysis Date: **11/14/2012**	SeqNo: **198833**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211301**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID **LCS-4757**	SampType: **LCS**	TestCode: **SM5210B: BOD**
Client ID: **LCSW**	Batch ID: **4757**	RunNo: **6874**
Prep Date: **11/9/2012**	Analysis Date: **11/14/2012**	SeqNo: **198834** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.0	80.3	103			

Sample ID **LCSD-4757**	SampType: **LCSD**	TestCode: **SM5210B: BOD**
Client ID: **LCSS02**	Batch ID: **4757**	RunNo: **6874**
Prep Date: **11/9/2012**	Analysis Date: **11/14/2012**	SeqNo: **198835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	87.7	80.3	103	0.867	20	

Sample ID **1211301-010BDUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**
Client ID: **EP-11**	Batch ID: **4757**	RunNo: **6874**
Prep Date: **11/9/2012**	Analysis Date: **11/14/2012**	SeqNo: **198837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	130	2.0						0.675	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Z Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211301**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual-Ponds

Sample ID **MB-4732**	SampType: **MBLK**	TestCode: **SM 9223B Fecal Indicator: E. coli MPN**
Client ID: **PBW**	Batch ID: **4732**	RunNo: **6770**
Prep Date: **11/7/2012**	Analysis Date: **11/8/2012**	SeqNo: **195854** Units: **CFU/100ml**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
E. Coli	<1	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1211301

Received by/date: MG 11/07/12

Logged By: **Ashley Gallegos** 11/7/2012 1:56:00 PM

Completed By: **Ashley Gallegos** 11/7/2012 2:20:20 PM

Reviewed By: JO 11/07/2012

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 12 (<2 or >12 unless noted)

Adjusted?

Checked by: MG

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211301	Analysis Request: BOD	COD	E-COLI	Air Bubbles (Y or N)
11/7/2012	800	H20	EP-1			-001	X	X	X	
11/7/2012	810	H20	EP-2			-002	X	X	X	
11/7/2012	820	H20	EP-3			-003	X	X	X	
11/7/2012	830	H20	EP-4			-004	X	X	X	
11/7/2012	840	H20	EP-5			-005	X	X	X	
11/7/2012	850	H20	EP-6			-006	X	X	X	
11/7/2012	900	H20	EP-7			-007	X	X	X	
11/7/2012	910	H20	EP-8			-008	X	X	X	
11/7/2012	~~920~~ 1020	H20	EP-9			-009	X	X	X	
11/7/2012	~~930~~ 0930	H20	EP-11			-010	X	X	X	
11/7/2012	~~940~~ 0930	H20	EP-12A			-011	X	X	X	
11/7/2012	~~1000~~ 0940	H20	EP-12B			-012	X	X	X	

BG 11/8

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-7-12	1546			11/07/12	1356
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: Verified collection times for -009, -010 -011 and -012 with Cheryl. mg 11/08

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
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Website: www.hallenvironmental.com

December 11, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 2012 Semi-Annual Ponds OrderNo.: 1211303

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 15 sample(s) on 11/7/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211303**
Date Reported: **12/11/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-001 **Matrix:** AQUEOUS

Client Sample ID: EP-2
Collection Date: 11/6/2012 10:15:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	84	5.0	*	mg/L	50	11/13/2012 3:06:19 PM
Chloride	290	10		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:25:46 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:25:46 AM
Sulfate	820	10		mg/L	20	11/8/2012 8:25:46 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.034	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:14:41 PM
Calcium	38	1.0		mg/L	1	11/9/2012 4:14:41 PM
Chromium	0.012	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:14:41 PM
Iron	1.2	0.10	*	mg/L	5	11/9/2012 4:27:47 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Magnesium	14	1.0		mg/L	1	11/9/2012 4:14:41 PM
Manganese	0.36	0.0020	*	mg/L	1	11/9/2012 4:14:41 PM
Potassium	31	1.0		mg/L	1	11/9/2012 4:14:41 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:14:41 PM
Sodium	830	10		mg/L	10	11/9/2012 4:50:35 PM
Zinc	0.045	0.010		mg/L	1	11/9/2012 4:14:41 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.037	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:00:48 PM
Chromium	0.014	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:00:48 PM
Iron	1.3	0.10	*	mg/L	5	11/15/2012 8:04:21 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:00:48 PM
Manganese	0.37	0.0020	*	mg/L	1	11/15/2012 8:00:48 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:29:52 PM
Zinc	0.025	0.010		mg/L	1	11/15/2012 8:00:48 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.010	0.0010	*	mg/L	1	11/19/2012 3:10:28 PM
Selenium	0.0041	0.0010		mg/L	1	11/19/2012 4:48:27 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:10:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0093	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Selenium	0.0053	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:29:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 10:15:00 AM
Lab ID: 1211303-001
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00033	0.00020		mg/L	1	11/12/2012 3:14:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Aniline	110	50		µg/L	1	11/9/2012 11:07:17 AM
Anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Azobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Benzoic acid	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Carbazole	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Chrysene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dimethylphenol	160	50		µg/L	1	11/9/2012 11:07:17 AM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-001 **Matrix:** AQUEOUS

Client Sample ID: EP-2
Collection Date: 11/6/2012 10:15:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluoranthene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Fluorene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Isophorone	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Methylphenol	920	50		µg/L	1	11/9/2012 11:07:17 AM
3+4-Methylphenol	1300	250		µg/L	5	11/9/2012 5:15:10 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Naphthalene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 11:07:17 AM
Phenanthrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Phenol	2300	250		µg/L	5	11/9/2012 5:15:10 PM
Pyrene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Pyridine	ND	50		µg/L	1	11/9/2012 11:07:17 AM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 11:07:17 AM
Surr: 2,4,6-Tribromophenol	85.1	42.9-124		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorobiphenyl	75.9	40-108		%REC	1	11/9/2012 11:07:17 AM
Surr: 2-Fluorophenol	67.8	23.6-94.8		%REC	1	11/9/2012 11:07:17 AM
Surr: 4-Terphenyl-d14	64.9	41.9-103		%REC	1	11/9/2012 11:07:17 AM
Surr: Nitrobenzene-d5	78.0	42.6-114		%REC	1	11/9/2012 11:07:17 AM
Surr: Phenol-d5	51.1	20.3-74.7		%REC	1	11/9/2012 11:07:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Toluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-2
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 10:15:00 AM
Lab ID: 1211303-001
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Naphthalene	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/8/2012 11:24:29 PM
Acetone	2400	500		µg/L	50	11/16/2012 8:32:00 PM
Bromobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromodichloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromoform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Bromomethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Butanone	380	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon disulfide	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Chloroform	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Chloromethane	ND	30		µg/L	10	11/8/2012 11:24:29 PM
2-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Chlorotoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Dibromochloromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dibromomethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
2-Hexanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Isopropylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/8/2012 11:24:29 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-001 **Matrix:** AQUEOUS

Client Sample ID: EP-2
Collection Date: 11/6/2012 10:15:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/8/2012 11:24:29 PM
Methylene Chloride	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Butylbenzene	ND	30		µg/L	10	11/8/2012 11:24:29 PM
n-Propylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
sec-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Styrene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
tert-Butylbenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,2-DCE	ND	10		µg/L	10	11/8/2012 11:24:29 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/8/2012 11:24:29 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/8/2012 11:24:29 PM
Vinyl chloride	ND	10		µg/L	10	11/8/2012 11:24:29 PM
Xylenes, Total	ND	15		µg/L	10	11/8/2012 11:24:29 PM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	10	11/8/2012 11:24:29 PM
Surr: Toluene-d8	93.5	70-130		%REC	10	11/8/2012 11:24:29 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	6900	0.50		µmhos/cm	50	11/8/2012 12:46:15 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.31	1.68	H	pH units	1	11/9/2012 5:46:39 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-002 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/6/2012 10:35:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	77	2.0	*	mg/L	20	11/8/2012 8:50:35 AM
Chloride	2000	250		mg/L	500	11/8/2012 9:03:00 AM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 8:50:35 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 8:50:35 AM
Sulfate	1200	250		mg/L	500	11/8/2012 9:03:00 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.040	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 4:58:03 PM
Calcium	140	10		mg/L	10	11/9/2012 5:03:40 PM
Chromium	0.0065	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 4:58:03 PM
Iron	1.0	0.020	*	mg/L	1	11/9/2012 4:58:03 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Magnesium	46	1.0		mg/L	1	11/9/2012 4:58:03 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 4:58:03 PM
Potassium	89	1.0		mg/L	1	11/9/2012 4:58:03 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 4:58:03 PM
Sodium	1800	100		mg/L	100	11/9/2012 5:07:37 PM
Zinc	0.076	0.010		mg/L	1	11/9/2012 4:58:03 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.039	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:21:51 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:21:51 PM
Iron	1.7	0.10	*	mg/L	5	11/15/2012 8:25:13 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:21:51 PM
Manganese	0.48	0.0020	*	mg/L	1	11/15/2012 8:21:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:37:11 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 8:21:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0081	0.0010		mg/L	1	11/19/2012 3:12:20 PM
Selenium	0.0053	0.0010		mg/L	1	11/19/2012 4:50:18 PM
Uranium	0.0014	0.0010		mg/L	1	11/19/2012 3:12:20 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0095	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Selenium	0.0080	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:33:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-002 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/6/2012 10:35:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00044	0.00020		mg/L	1	11/12/2012 3:16:08 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Acenaphthylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Aniline	120	20		µg/L	1	11/9/2012 11:37:52 AM
Anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Azobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benz(a)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(a)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(b)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(g,h,i)perylene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzo(k)fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Benzoic acid	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Benzyl alcohol	26	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethoxy)methane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroethyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-chloroisopropyl)ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Bromophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Butyl benzyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Carbazole	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloro-3-methylphenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chloroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chloronaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Chlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Chlorophenyl phenyl ether	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Chrysene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-butyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Di-n-octyl phthalate	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Dibenz(a,h)anthracene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dibenzofuran	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,3-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,4-Dichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3,3'-Dichlorobenzidine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Diethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Dimethyl phthalate	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dichlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dimethylphenol	100	20		µg/L	1	11/9/2012 11:37:52 AM
4,6-Dinitro-2-methylphenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
2,4-Dinitrophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-002 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/6/2012 10:35:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,6-Dinitrotoluene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluoranthene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Fluorene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorobutadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachlorocyclopentadiene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Hexachloroethane	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Isophorone	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylnaphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Methylphenol	520	200		µg/L	10	11/9/2012 5:45:43 PM
3+4-Methylphenol	960	200		µg/L	10	11/9/2012 5:45:43 PM
N-Nitrosodi-n-propylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodimethylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
N-Nitrosodiphenylamine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Naphthalene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
3-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitroaniline	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Nitrobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
4-Nitrophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pentachlorophenol	ND	40		µg/L	1	11/9/2012 11:37:52 AM
Phenanthrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Phenol	2000	200		µg/L	10	11/9/2012 5:45:43 PM
Pyrene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Pyridine	ND	20		µg/L	1	11/9/2012 11:37:52 AM
1,2,4-Trichlorobenzene	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,5-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
2,4,6-Trichlorophenol	ND	20		µg/L	1	11/9/2012 11:37:52 AM
Surr: 2,4,6-Tribromophenol	91.2	42.9-124		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorobiphenyl	67.2	40-108		%REC	1	11/9/2012 11:37:52 AM
Surr: 2-Fluorophenol	71.6	23.6-94.8		%REC	1	11/9/2012 11:37:52 AM
Surr: 4-Terphenyl-d14	69.2	41.9-103		%REC	1	11/9/2012 11:37:52 AM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 11:37:52 AM
Surr: Phenol-d5	53.9	20.3-74.7		%REC	1	11/9/2012 11:37:52 AM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-002 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/6/2012 10:35:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:03:34 PM
Acetone	240	100		µg/L	10	11/16/2012 9:03:34 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon disulfide	380	100		µg/L	10	11/16/2012 9:03:34 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:03:34 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:03:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-002 **Matrix:** AQUEOUS

Client Sample ID: EP-3
Collection Date: 11/6/2012 10:35:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:03:34 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:03:34 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:03:34 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:03:34 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:03:34 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:03:34 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:03:34 PM
Surr: 1,2-Dichloroethane-d4	86.3	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: 4-Bromofluorobenzene	86.9	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Dibromofluoromethane	90.4	70-130		%REC	10	11/16/2012 9:03:34 PM
Surr: Toluene-d8	99.4	70-130		%REC	10	11/16/2012 9:03:34 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 12:50:45 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.84	1.68	H	pH units	1	11/9/2012 5:50:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-003 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 11/6/2012 11:00:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	46	2.0	*	mg/L	20	11/8/2012 9:15:25 AM
Chloride	4000	250		mg/L	500	11/8/2012 9:52:39 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 9:15:25 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 9:15:25 AM
Sulfate	980	10		mg/L	20	11/8/2012 9:15:25 AM
Nitrate+Nitrite as N	ND	10		mg/L	50	11/13/2012 5:47:39 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.068	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:11:13 PM
Calcium	170	10		mg/L	10	11/9/2012 5:14:52 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:11:13 PM
Iron	0.29	0.020		mg/L	1	11/9/2012 5:11:13 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Magnesium	83	1.0		mg/L	1	11/9/2012 5:11:13 PM
Manganese	0.59	0.0020	*	mg/L	1	11/9/2012 5:11:13 PM
Potassium	220	10		mg/L	10	11/9/2012 5:14:52 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:11:13 PM
Sodium	2900	50		mg/L	50	11/9/2012 5:18:51 PM
Zinc	0.13	0.010		mg/L	1	11/9/2012 5:11:13 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.061	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:29:18 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:29:18 PM
Iron	1.2	0.10	*	mg/L	5	11/15/2012 8:32:24 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:29:18 PM
Manganese	0.52	0.0020	*	mg/L	1	11/15/2012 8:29:18 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 5:55:28 PM
Zinc	0.026	0.010		mg/L	1	11/15/2012 8:29:18 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0076	0.0010		mg/L	1	11/19/2012 3:14:13 PM
Selenium	ND	0.010		mg/L	10	12/3/2012 1:40:36 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:14:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.011	0.0025	*	mg/L	2.5	11/16/2012 3:37:21 PM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:37:21 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-003 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 11/6/2012 11:00:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:17:55 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Aniline	60	50		µg/L	1	11/9/2012 12:08:30 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dimethylphenol	72	50		µg/L	1	11/9/2012 12:08:30 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-003 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 11/6/2012 11:00:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Methylphenol	290	50		µg/L	1	11/9/2012 12:08:30 PM
3+4-Methylphenol	530	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:08:30 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Phenol	1100	50		µg/L	1	11/9/2012 12:08:30 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:08:30 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:08:30 PM
Surr: 2,4,6-Tribromophenol	93.2	42.9-124		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorobiphenyl	73.9	40-108		%REC	1	11/9/2012 12:08:30 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 12:08:30 PM
Surr: 4-Terphenyl-d14	77.0	41.9-103		%REC	1	11/9/2012 12:08:30 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:08:30 PM
Surr: Phenol-d5	51.5	20.3-74.7		%REC	1	11/9/2012 12:08:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Toluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-003
Matrix: AQUEOUS
Client Sample ID: EP-4
Collection Date: 11/6/2012 11:00:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 9:35:18 PM
Acetone	130	100		µg/L	10	11/16/2012 9:35:18 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromoform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon disulfide	780	100		µg/L	10	11/16/2012 9:35:18 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Chloroform	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 9:35:18 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 9:35:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-003 **Matrix:** AQUEOUS

Client Sample ID: EP-4
Collection Date: 11/6/2012 11:00:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 9:35:18 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 9:35:18 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Styrene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 9:35:18 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 9:35:18 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 9:35:18 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 9:35:18 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 9:35:18 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: 4-Bromofluorobenzene	97.0	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Dibromofluoromethane	90.5	70-130		%REC	10	11/16/2012 9:35:18 PM
Surr: Toluene-d8	107	70-130		%REC	10	11/16/2012 9:35:18 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 12:54:39 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.13	1.68	H	pH units	1	11/9/2012 5:54:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-004 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 11/6/2012 11:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	16	5.0	*	mg/L	50	11/13/2012 3:18:44 PM
Chloride	5600	250		mg/L	500	11/8/2012 10:42:18 AM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 10:42:18 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:29:54 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:29:54 AM
Sulfate	870	10		mg/L	20	11/8/2012 10:29:54 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.070	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 5:33:30 PM
Calcium	170	10		mg/L	10	11/9/2012 5:38:48 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 5:33:30 PM
Iron	0.25	0.020		mg/L	1	11/9/2012 5:33:30 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Magnesium	110	10		mg/L	10	11/9/2012 5:38:48 PM
Manganese	0.45	0.0020	*	mg/L	1	11/9/2012 5:33:30 PM
Potassium	290	10		mg/L	10	11/9/2012 5:38:48 PM
Selenium	ND	0.050		mg/L	1	11/9/2012 5:33:30 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 5:33:30 PM
Sodium	3700	50		mg/L	50	11/14/2012 1:45:18 PM
Zinc	0.034	0.010		mg/L	1	11/9/2012 5:33:30 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.062	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:36:29 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:36:29 PM
Iron	0.63	0.020	*	mg/L	1	11/15/2012 8:36:29 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:36:29 PM
Manganese	0.39	0.0020	*	mg/L	1	11/15/2012 8:36:29 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 6:03:07 PM
Zinc	0.023	0.010		mg/L	1	11/15/2012 8:36:29 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0075	0.0010		mg/L	1	11/19/2012 3:16:05 PM
Uranium	ND	0.0010		mg/L	1	11/19/2012 3:16:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.012	0.0025	*	mg/L	2.5	11/16/2012 3:41:17 PM
Selenium	0.012	0.0025		mg/L	2.5	11/16/2012 3:41:17 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:41:17 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-004 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 11/6/2012 11:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:19:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Aniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Carbazole	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Chrysene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dimethylphenol	74	50		µg/L	1	11/9/2012 12:39:12 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-004 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 11/6/2012 11:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Fluorene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Isophorone	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Methylphenol	270	50		µg/L	1	11/9/2012 12:39:12 PM
3+4-Methylphenol	400	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 12:39:12 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Phenol	900	50		µg/L	1	11/9/2012 12:39:12 PM
Pyrene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Pyridine	ND	50		µg/L	1	11/9/2012 12:39:12 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 12:39:12 PM
Surr: 2,4,6-Tribromophenol	78.1	42.9-124		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorobiphenyl	64.5	40-108		%REC	1	11/9/2012 12:39:12 PM
Surr: 2-Fluorophenol	65.2	23.6-94.8		%REC	1	11/9/2012 12:39:12 PM
Surr: 4-Terphenyl-d14	72.2	41.9-103		%REC	1	11/9/2012 12:39:12 PM
Surr: Nitrobenzene-d5	90.5	42.6-114		%REC	1	11/9/2012 12:39:12 PM
Surr: Phenol-d5	53.2	20.3-74.7		%REC	1	11/9/2012 12:39:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-004 **Matrix:** AQUEOUS

Client Sample ID: EP-5
Collection Date: 11/6/2012 11:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:07:03 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon disulfide	1300	100		µg/L	10	11/16/2012 10:07:03 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:07:03 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:07:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-004
Matrix: AQUEOUS
Client Sample ID: EP-5
Collection Date: 11/6/2012 11:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:07:03 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:07:03 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:07:03 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:07:03 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:07:03 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:07:03 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:07:03 PM
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: 4-Bromofluorobenzene	89.8	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Dibromofluoromethane	91.0	70-130		%REC	10	11/16/2012 10:07:03 PM
Surr: Toluene-d8	97.9	70-130		%REC	10	11/16/2012 10:07:03 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	23000	0.50		µmhos/cm	50	11/8/2012 12:58:33 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.13	1.68	H	pH units	1	11/9/2012 5:58:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-005 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 11/6/2012 12:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	21	2.0	*	mg/L	20	11/8/2012 10:54:42 AM
Chloride	11000	500		mg/L	1000	11/13/2012 3:43:34 PM
Nitrogen, Nitrite (As N)	ND	50		mg/L	500	11/8/2012 11:07:06 AM
Bromide	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 10:54:42 AM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 10:54:42 AM
Sulfate	2500	250		mg/L	500	11/8/2012 11:07:06 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.11	0.020		mg/L	10	11/9/2012 5:50:29 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:50:29 PM
Calcium	410	10		mg/L	10	11/9/2012 5:50:29 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:50:29 PM
Iron	0.053	0.020		mg/L	1	11/9/2012 5:46:40 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Magnesium	230	10		mg/L	10	11/9/2012 5:50:29 PM
Manganese	0.10	0.020	*	mg/L	10	11/9/2012 5:50:29 PM
Potassium	480	10		mg/L	10	11/9/2012 5:50:29 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:50:29 PM
Sodium	6500	100		mg/L	100	11/16/2012 11:43:42 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:50:29 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.092	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 8:44:22 PM
Chromium	0.0076	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Copper	ND	0.0060		mg/L	1	11/15/2012 8:44:22 PM
Iron	0.14	0.020		mg/L	1	11/15/2012 8:44:22 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 8:44:22 PM
Manganese	0.086	0.0020	*	mg/L	1	11/15/2012 8:44:22 PM
Silver	ND	0.0050		mg/L	1	11/28/2012 2:28:37 PM
Zinc	ND	0.010		mg/L	1	11/15/2012 8:44:22 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.022	0.010	*	mg/L	10	11/20/2012 12:47:25 PM
Selenium	0.014	0.010		mg/L	10	12/3/2012 1:44:32 PM
Uranium	ND	0.0050		mg/L	5	11/19/2012 3:31:06 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.023	0.0025	*	mg/L	2.5	11/16/2012 3:45:13 PM
Selenium	0.024	0.0025		mg/L	2.5	11/16/2012 3:45:13 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 3:45:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-005 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 11/6/2012 12:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:21:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Aniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Carbazole	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Chrysene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-005 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 11/6/2012 12:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Fluorene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Isophorone	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 1:09:57 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Phenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyrene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Pyridine	ND	50		µg/L	1	11/9/2012 1:09:57 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 1:09:57 PM
Surr: 2,4,6-Tribromophenol	82.8	42.9-124		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorobiphenyl	87.6	40-108		%REC	1	11/9/2012 1:09:57 PM
Surr: 2-Fluorophenol	71.1	23.6-94.8		%REC	1	11/9/2012 1:09:57 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	11/9/2012 1:09:57 PM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	11/9/2012 1:09:57 PM
Surr: Phenol-d5	50.0	20.3-74.7		%REC	1	11/9/2012 1:09:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Toluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-6
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 12:00:00 PM
Lab ID: 1211303-005
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Naphthalene	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	11/16/2012 10:38:45 PM
Acetone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Bromobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromodichloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromoform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Bromomethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Butanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon disulfide	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Chloroform	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Chloromethane	ND	30		µg/L	10	11/16/2012 10:38:45 PM
2-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Chlorotoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Dibromochloromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dibromomethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
2-Hexanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2012 10:38:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-005 **Matrix:** AQUEOUS

Client Sample ID: EP-6
Collection Date: 11/6/2012 12:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2012 10:38:45 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Butylbenzene	ND	30		µg/L	10	11/16/2012 10:38:45 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Styrene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2012 10:38:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2012 10:38:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2012 10:38:45 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2012 10:38:45 PM
Xylenes, Total	ND	15		µg/L	10	11/16/2012 10:38:45 PM
Surr: 1,2-Dichloroethane-d4	86.2	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/16/2012 10:38:45 PM
Surr: Toluene-d8	99.1	70-130		%REC	10	11/16/2012 10:38:45 PM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	42000	0.50		µmhos/cm	50	11/8/2012 1:02:32 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.93	1.68	H	pH units	1	11/9/2012 6:03:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 12:30:00 PM
Lab ID: 1211303-006
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	13	2.0	*	mg/L	20	11/8/2012 11:19:31 AM
Chloride	46000	2500		mg/L	5000	11/8/2012 11:31:56 AM
Bromide	380	20		mg/L	200	11/15/2012 6:17:44 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 11:19:31 AM
Sulfate	6400	2500		mg/L	5000	11/8/2012 11:31:56 AM
Nitrate+Nitrite as N	ND	40		mg/L	200	11/21/2012 12:05:05 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.17	0.020		mg/L	10	11/9/2012 5:58:22 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 5:58:22 PM
Calcium	960	10		mg/L	10	11/9/2012 5:58:22 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Copper	ND	0.060		mg/L	10	11/9/2012 5:58:22 PM
Iron	ND	0.20		mg/L	10	11/9/2012 5:58:22 PM
Lead	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Magnesium	750	10		mg/L	10	11/9/2012 5:58:22 PM
Manganese	0.92	0.020	*	mg/L	10	11/9/2012 5:58:22 PM
Potassium	1100	20		mg/L	20	11/9/2012 6:02:03 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 5:58:22 PM
Silver	ND	0.050		mg/L	10	11/9/2012 5:58:22 PM
Sodium	25000	500		mg/L	500	11/16/2012 11:47:36 AM
Zinc	ND	0.10		mg/L	10	11/9/2012 5:58:22 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.15	0.010		mg/L	5	11/15/2012 8:55:49 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 8:55:49 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Copper	ND	0.030		mg/L	5	11/15/2012 8:55:49 PM
Iron	0.13	0.10		mg/L	5	11/15/2012 8:55:49 PM
Lead	ND	0.025		mg/L	5	11/15/2012 8:55:49 PM
Manganese	0.94	0.010	*	mg/L	5	11/15/2012 8:55:49 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 8:55:49 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:23:30 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 8:55:49 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.048	0.010	*	mg/L	10	11/19/2012 4:55:56 PM
Uranium	ND	0.010		mg/L	10	11/19/2012 4:55:56 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.055	0.010	*	mg/L	10	11/21/2012 11:09:58 AM
Uranium	ND	0.010		mg/L	10	11/21/2012 11:09:58 AM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-006 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 11/6/2012 12:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:23:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Aniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Carbazole	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Chrysene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-006 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 11/6/2012 12:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Fluorene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Isophorone	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 6:16:18 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Phenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyrene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Pyridine	ND	50		µg/L	1	11/9/2012 6:16:18 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 6:16:18 PM
Surr: 2,4,6-Tribromophenol	52.0	42.9-124		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorobiphenyl	88.0	40-108		%REC	1	11/9/2012 6:16:18 PM
Surr: 2-Fluorophenol	34.8	23.6-94.8		%REC	1	11/9/2012 6:16:18 PM
Surr: 4-Terphenyl-d14	72.5	41.9-103		%REC	1	11/9/2012 6:16:18 PM
Surr: Nitrobenzene-d5	89.2	42.6-114		%REC	1	11/9/2012 6:16:18 PM
Surr: Phenol-d5	35.4	20.3-74.7		%REC	1	11/9/2012 6:16:18 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-006 **Matrix:** AQUEOUS

Client Sample ID: EP-9
Collection Date: 11/6/2012 12:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:16:59 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:16:59 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:16:59 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-9
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 12:30:00 PM
Lab ID: 1211303-006
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:16:59 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:16:59 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:16:59 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:16:59 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:16:59 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:16:59 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:16:59 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: 4-Bromofluorobenzene	89.9	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Dibromofluoromethane	90.7	70-130		%REC	10	11/17/2012 1:16:59 AM
Surr: Toluene-d8	100	70-130		%REC	10	11/17/2012 1:16:59 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	150000	0.50		µmhos/cm	50	11/8/2012 1:06:35 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.69	1.68	H	pH units	1	11/9/2012 6:07:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 11/6/2012 1:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	71	20	*	mg/L	200	11/13/2012 4:20:48 PM
Chloride	250000	10000		mg/L	20000	11/13/2012 2:29:05 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Bromide	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Nitrogen, Nitrate (As N)	ND	500		mg/L	5000	11/8/2012 11:56:45 AM
Phosphorus, Orthophosphate (As P)	ND	2500		mg/L	5000	11/8/2012 11:56:45 AM
Sulfate	31000	2500		mg/L	5000	11/8/2012 11:56:45 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.26	0.040		mg/L	20	11/9/2012 6:29:11 PM
Cadmium	ND	0.040		mg/L	20	11/9/2012 6:29:11 PM
Calcium	550	20		mg/L	20	11/9/2012 6:29:11 PM
Chromium	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Copper	ND	0.12		mg/L	20	11/9/2012 6:29:11 PM
Iron	ND	0.40		mg/L	20	11/9/2012 6:29:11 PM
Lead	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Magnesium	5200	500		mg/L	500	11/9/2012 6:33:00 PM
Manganese	36	1.0	*	mg/L	500	11/9/2012 6:33:00 PM
Potassium	7600	500		mg/L	500	11/9/2012 6:33:00 PM
Selenium	ND	1.0		mg/L	20	11/9/2012 6:29:11 PM
Silver	ND	0.10		mg/L	20	11/9/2012 6:29:11 PM
Sodium	99000	2000		mg/L	2000	11/16/2012 2:03:02 PM
Zinc	ND	0.20		mg/L	20	11/9/2012 6:29:11 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.23	0.040		mg/L	20	11/28/2012 3:09:16 PM
Cadmium	ND	0.040		mg/L	20	11/28/2012 3:09:16 PM
Chromium	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Copper	ND	0.12		mg/L	20	11/28/2012 3:09:16 PM
Iron	ND	0.20		mg/L	10	11/20/2012 7:43:28 PM
Lead	ND	0.10		mg/L	20	11/28/2012 3:09:16 PM
Manganese	34	0.10	*	mg/L	50	11/16/2012 9:02:45 PM
Selenium	ND	2.5		mg/L	50	11/16/2012 9:02:45 PM
Silver	ND	0.10		mg/L	20	11/28/2012 3:13:19 PM
Zinc	ND	0.20		mg/L	20	11/28/2012 3:09:16 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.47	0.020	*	mg/L	20	11/20/2012 12:51:21 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 3:34:51 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.50	0.020	*	mg/L	20	11/21/2012 11:13:53 AM
Uranium	ND	0.050		mg/L	50	11/21/2012 12:05:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 11/6/2012 1:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:25:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 11/6/2012 1:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:11:21 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:11:21 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:11:21 PM
Surr: 2,4,6-Tribromophenol	63.8	42.9-124		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorobiphenyl	82.9	40-108		%REC	1	11/9/2012 2:11:21 PM
Surr: 2-Fluorophenol	64.0	23.6-94.8		%REC	1	11/9/2012 2:11:21 PM
Surr: 4-Terphenyl-d14	63.3	41.9-103		%REC	1	11/9/2012 2:11:21 PM
Surr: Nitrobenzene-d5	83.7	42.6-114		%REC	1	11/9/2012 2:11:21 PM
Surr: Phenol-d5	62.5	20.3-74.7		%REC	1	11/9/2012 2:11:21 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Toluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-8
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 1:00:00 PM
Lab ID: 1211303-007 **Matrix:** AQUEOUS **Received Date:** 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 1:48:38 AM
Acetone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromoform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Chloroform	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 1:48:38 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 1:48:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-007 **Matrix:** AQUEOUS

Client Sample ID: EP-8
Collection Date: 11/6/2012 1:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 1:48:38 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 1:48:38 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Styrene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 1:48:38 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 1:48:38 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 1:48:38 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 1:48:38 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 1:48:38 AM
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Dibromofluoromethane	89.4	70-130		%REC	10	11/17/2012 1:48:38 AM
Surr: Toluene-d8	104	70-130		%REC	10	11/17/2012 1:48:38 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	550000	1.0		µmhos/cm	100	11/9/2012 6:31:40 PM
SM4500-H+B: PH						Analyst: **JML**
pH	6.58	1.68	H	pH units	1	11/9/2012 6:11:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-008 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 11/6/2012 1:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	37	10	*	mg/L	100	11/13/2012 4:33:12 PM
Chloride	81000	2500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrite (As N)	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Bromide	ND	500		mg/L	5000	11/8/2012 12:21:34 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:09:10 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:09:10 PM
Sulfate	15000	2500		mg/L	5000	11/8/2012 12:21:34 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.14	0.020		mg/L	10	11/9/2012 6:37:00 PM
Cadmium	ND	0.020		mg/L	10	11/9/2012 6:37:00 PM
Calcium	910	10		mg/L	10	11/9/2012 6:37:00 PM
Chromium	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Copper	ND	0.060		mg/L	10	11/9/2012 6:37:00 PM
Iron	ND	0.20		mg/L	10	11/9/2012 6:37:00 PM
Lead	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Magnesium	1400	20		mg/L	20	11/9/2012 6:40:42 PM
Manganese	0.72	0.020	*	mg/L	10	11/9/2012 6:37:00 PM
Potassium	2300	50		mg/L	50	11/14/2012 2:00:19 PM
Selenium	ND	0.50		mg/L	10	11/9/2012 6:37:00 PM
Silver	ND	0.050		mg/L	10	11/9/2012 6:37:00 PM
Sodium	43000	1000		mg/L	1000	11/14/2012 2:04:23 PM
Zinc	ND	0.10		mg/L	10	11/9/2012 6:37:00 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.081	0.010		mg/L	5	11/15/2012 9:25:21 PM
Cadmium	ND	0.010		mg/L	5	11/15/2012 9:25:21 PM
Chromium	ND	0.030		mg/L	5	11/15/2012 9:25:21 PM
Copper	ND	0.030		mg/L	5	11/16/2012 9:06:52 PM
Iron	ND	0.10		mg/L	5	11/15/2012 9:25:21 PM
Lead	ND	0.025		mg/L	5	11/15/2012 9:25:21 PM
Manganese	0.32	0.010	*	mg/L	5	11/15/2012 9:25:21 PM
Selenium	ND	0.25		mg/L	5	11/15/2012 9:25:21 PM
Silver	ND	0.025		mg/L	5	11/27/2012 6:59:03 PM
Zinc	ND	0.050		mg/L	5	11/15/2012 9:25:21 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.12	0.010	*	mg/L	10	11/19/2012 4:59:41 PM
Uranium	ND	0.020		mg/L	20	12/3/2012 1:48:28 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.14	0.020	*	mg/L	20	11/21/2012 12:09:01 PM
Uranium	ND	0.020		mg/L	20	11/21/2012 12:09:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-008 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 11/6/2012 1:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:26:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Aniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Carbazole	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Chrysene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-008 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 11/6/2012 1:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Fluorene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Isophorone	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3+4-Methylphenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 2:42:02 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Phenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyrene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Pyridine	ND	50		µg/L	1	11/9/2012 2:42:02 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 2:42:02 PM
Surr: 2,4,6-Tribromophenol	55.6	42.9-124		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorobiphenyl	65.2	40-108		%REC	1	11/9/2012 2:42:02 PM
Surr: 2-Fluorophenol	48.7	23.6-94.8		%REC	1	11/9/2012 2:42:02 PM
Surr: 4-Terphenyl-d14	50.1	41.9-103		%REC	1	11/9/2012 2:42:02 PM
Surr: Nitrobenzene-d5	67.5	42.6-114		%REC	1	11/9/2012 2:42:02 PM
Surr: Phenol-d5	42.2	20.3-74.7		%REC	1	11/9/2012 2:42:02 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-008 **Matrix:** AQUEOUS

Client Sample ID: EP-7
Collection Date: 11/6/2012 1:30:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:20:11 AM
Acetone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon disulfide	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:20:11 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:20:11 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-7
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 1:30:00 PM
Lab ID: 1211303-008
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:20:11 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:20:11 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:20:11 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:20:11 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:20:11 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:20:11 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:20:11 AM
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	10	11/17/2012 2:20:11 AM
Surr: Toluene-d8	98.7	70-130		%REC	10	11/17/2012 2:20:11 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	210000	0.50		µmhos/cm	50	11/8/2012 1:14:52 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.76	1.68	H	pH units	1	11/9/2012 6:15:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-009 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 11/6/2012 1:45:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	40	2.0	*	mg/L	20	11/8/2012 12:58:50 PM
Chloride	3500	500		mg/L	1000	11/8/2012 1:11:14 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 12:58:50 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 12:58:50 PM
Sulfate	1300	500		mg/L	1000	11/8/2012 1:11:14 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.056	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 6:49:50 PM
Calcium	170	10		mg/L	10	11/9/2012 6:53:28 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 6:49:50 PM
Iron	0.79	0.020	*	mg/L	1	11/9/2012 6:49:50 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 6:49:50 PM
Manganese	0.40	0.0020	*	mg/L	1	11/9/2012 6:49:50 PM
Potassium	210	10		mg/L	10	11/9/2012 6:53:28 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 6:49:50 PM
Sodium	2800	100		mg/L	100	11/14/2012 2:08:08 PM
Zinc	0.043	0.010		mg/L	1	11/9/2012 6:49:50 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.051	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:29:12 PM
Chromium	0.0065	0.0060		mg/L	1	11/15/2012 9:29:12 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:10:43 PM
Iron	0.99	0.020	*	mg/L	1	11/15/2012 9:29:12 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:29:12 PM
Manganese	0.35	0.0020	*	mg/L	1	11/15/2012 9:29:12 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:03:00 PM
Zinc	0.024	0.010		mg/L	1	11/15/2012 9:29:12 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 3:55:55 PM
Selenium	0.011	0.010		mg/L	10	12/3/2012 1:52:24 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 3:55:55 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.017	0.0025	*	mg/L	2.5	11/16/2012 4:00:57 PM
Selenium	0.014	0.0025		mg/L	2.5	11/16/2012 4:00:57 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:00:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-009 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 11/6/2012 1:45:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:28:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-009 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 11/6/2012 1:45:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Methylphenol	200	50		µg/L	1	11/9/2012 3:12:42 PM
3+4-Methylphenol	330	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:12:42 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Phenol	680	50		µg/L	1	11/9/2012 3:12:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:12:42 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:12:42 PM
Surr: 2,4,6-Tribromophenol	91.4	42.9-124		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorobiphenyl	80.2	40-108		%REC	1	11/9/2012 3:12:42 PM
Surr: 2-Fluorophenol	66.7	23.6-94.8		%REC	1	11/9/2012 3:12:42 PM
Surr: 4-Terphenyl-d14	71.3	41.9-103		%REC	1	11/9/2012 3:12:42 PM
Surr: Nitrobenzene-d5	77.3	42.6-114		%REC	1	11/9/2012 3:12:42 PM
Surr: Phenol-d5	48.6	20.3-74.7		%REC	1	11/9/2012 3:12:42 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Toluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-11
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 1:45:00 PM
Lab ID: 1211303-009
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 2:51:50 AM
Acetone	120	100		µg/L	10	11/17/2012 2:51:50 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromoform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon disulfide	590	100		µg/L	10	11/17/2012 2:51:50 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Chloroform	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 2:51:50 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 2:51:50 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-009 **Matrix:** AQUEOUS

Client Sample ID: EP-11
Collection Date: 11/6/2012 1:45:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 2:51:50 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 2:51:50 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Styrene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 2:51:50 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 2:51:50 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 2:51:50 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 2:51:50 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 2:51:50 AM
Surr: 1,2-Dichloroethane-d4	81.6	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Dibromofluoromethane	90.0	70-130		%REC	10	11/17/2012 2:51:50 AM
Surr: Toluene-d8	99.9	70-130		%REC	10	11/17/2012 2:51:50 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	18000	0.50		µmhos/cm	50	11/8/2012 1:19:18 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.06	1.68	H	pH units	1	11/9/2012 6:19:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-010 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 11/6/2012 2:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	35	2.0	*	mg/L	20	11/8/2012 1:23:39 PM
Chloride	4000	250		mg/L	500	11/8/2012 1:36:03 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:23:39 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:23:39 PM
Sulfate	1400	250		mg/L	500	11/8/2012 1:36:03 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.057	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:01:01 PM
Calcium	170	10		mg/L	10	11/9/2012 7:04:46 PM
Chromium	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:01:01 PM
Iron	0.70	0.020	*	mg/L	1	11/9/2012 7:01:01 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Magnesium	80	1.0		mg/L	1	11/9/2012 7:01:01 PM
Manganese	0.38	0.0020	*	mg/L	1	11/9/2012 7:01:01 PM
Potassium	220	10		mg/L	10	11/9/2012 7:04:46 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:01:01 PM
Sodium	2900	50		mg/L	50	11/14/2012 2:11:57 PM
Zinc	0.050	0.010		mg/L	1	11/9/2012 7:01:01 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.053	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:36:51 PM
Chromium	ND	0.0060		mg/L	1	11/15/2012 9:36:51 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:14:24 PM
Iron	0.86	0.020	*	mg/L	1	11/15/2012 9:36:51 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:36:51 PM
Manganese	0.32	0.0020	*	mg/L	1	11/15/2012 9:36:51 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:10:46 PM
Zinc	0.020	0.010		mg/L	1	11/15/2012 9:36:51 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.012	0.0010	*	mg/L	1	11/19/2012 4:05:21 PM
Selenium	0.010	0.010		mg/L	10	12/3/2012 1:56:20 PM
Uranium	0.0012	0.0010		mg/L	1	11/19/2012 4:05:21 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.015	0.0025	*	mg/L	2.5	11/21/2012 11:21:46 AM
Selenium	0.013	0.0025		mg/L	2.5	11/16/2012 4:16:45 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:16:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-010
Matrix: AQUEOUS
Client Sample ID: EP-12A
Collection Date: 11/6/2012 2:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	11/12/2012 3:30:22 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Aniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Carbazole	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Chrysene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dimethylphenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-010
Matrix: AQUEOUS
Client Sample ID: EP-12A
Collection Date: 11/6/2012 2:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Fluorene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Isophorone	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Methylphenol	150	50		µg/L	1	11/9/2012 3:43:19 PM
3+4-Methylphenol	210	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 3:43:19 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Phenol	460	50		µg/L	1	11/9/2012 3:43:19 PM
Pyrene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Pyridine	ND	50		µg/L	1	11/9/2012 3:43:19 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 3:43:19 PM
Surr: 2,4,6-Tribromophenol	80.7	42.9-124		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorobiphenyl	65.7	40-108		%REC	1	11/9/2012 3:43:19 PM
Surr: 2-Fluorophenol	56.2	23.6-94.8		%REC	1	11/9/2012 3:43:19 PM
Surr: 4-Terphenyl-d14	63.1	41.9-103		%REC	1	11/9/2012 3:43:19 PM
Surr: Nitrobenzene-d5	62.8	42.6-114		%REC	1	11/9/2012 3:43:19 PM
Surr: Phenol-d5	44.6	20.3-74.7		%REC	1	11/9/2012 3:43:19 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-010 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 11/6/2012 2:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:23:29 AM
Acetone	150	100		µg/L	10	11/17/2012 3:23:29 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon disulfide	610	100		µg/L	10	11/17/2012 3:23:29 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:23:29 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:23:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-010 **Matrix:** AQUEOUS

Client Sample ID: EP-12A
Collection Date: 11/6/2012 2:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:23:29 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:23:29 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:23:29 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:23:29 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:23:29 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:23:29 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:23:29 AM
Surr: 1,2-Dichloroethane-d4	83.5	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Dibromofluoromethane	87.4	70-130		%REC	10	11/17/2012 3:23:29 AM
Surr: Toluene-d8	98.5	70-130		%REC	10	11/17/2012 3:23:29 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	19000	0.50		µmhos/cm	50	11/8/2012 1:23:22 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.09	1.68	H	pH units	1	11/9/2012 6:23:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-011 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
Collection Date: 11/6/2012 2:25:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	71	2.0	*	mg/L	20	11/8/2012 1:48:27 PM
Chloride	1900	250		mg/L	500	11/8/2012 2:00:52 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Bromide	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 1:48:27 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 1:48:27 PM
Sulfate	1100	250		mg/L	500	11/8/2012 2:00:52 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.042	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:27:58 PM
Calcium	150	10		mg/L	10	11/9/2012 7:31:58 PM
Chromium	0.0068	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:27:58 PM
Iron	1.1	0.20	*	mg/L	10	11/9/2012 7:31:58 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Magnesium	49	1.0		mg/L	1	11/9/2012 7:27:58 PM
Manganese	0.52	0.0020	*	mg/L	1	11/9/2012 7:27:58 PM
Potassium	100	10		mg/L	10	11/9/2012 7:31:58 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:27:58 PM
Sodium	1700	50		mg/L	50	11/14/2012 2:27:51 PM
Zinc	0.072	0.010		mg/L	1	11/9/2012 7:27:58 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.040	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 9:44:35 PM
Chromium	0.0069	0.0060		mg/L	1	11/15/2012 9:44:35 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:18:06 PM
Iron	1.6	0.10	*	mg/L	5	11/15/2012 9:47:57 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 9:44:35 PM
Manganese	0.47	0.0020	*	mg/L	1	11/15/2012 9:44:35 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:18:32 PM
Zinc	0.031	0.010		mg/L	1	11/15/2012 9:44:35 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.013	0.0010	*	mg/L	1	11/19/2012 4:07:13 PM
Selenium	0.012	0.0010		mg/L	1	11/19/2012 4:07:13 PM
Uranium	0.0082	0.0010		mg/L	1	11/19/2012 4:07:13 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0092	0.0025		mg/L	2.5	11/21/2012 11:25:42 AM
Selenium	0.0089	0.0025		mg/L	2.5	11/16/2012 4:20:41 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:20:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12B
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 2:25:00 PM
Lab ID: 1211303-011
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00042	0.00020		mg/L	1	11/12/2012 3:35:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Aniline	93	50		µg/L	1	11/9/2012 4:13:55 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dimethylphenol	89	50		µg/L	1	11/9/2012 4:13:55 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EP-12B
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 2:25:00 PM
Lab ID: 1211303-011
Matrix: AQUEOUS
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Methylphenol	460	50		µg/L	1	11/9/2012 4:13:55 PM
3+4-Methylphenol	960	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:13:55 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Phenol	1800	250		µg/L	5	11/9/2012 6:52:42 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:13:55 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:13:55 PM
Surr: 2,4,6-Tribromophenol	87.4	42.9-124		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorobiphenyl	74.2	40-108		%REC	1	11/9/2012 4:13:55 PM
Surr: 2-Fluorophenol	68.0	23.6-94.8		%REC	1	11/9/2012 4:13:55 PM
Surr: 4-Terphenyl-d14	70.2	41.9-103		%REC	1	11/9/2012 4:13:55 PM
Surr: Nitrobenzene-d5	77.2	42.6-114		%REC	1	11/9/2012 4:13:55 PM
Surr: Phenol-d5	50.6	20.3-74.7		%REC	1	11/9/2012 4:13:55 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Toluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM

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P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: EP-12B
Project: 2012 Semi-Annual Ponds
Collection Date: 11/6/2012 2:25:00 PM
Lab ID: 1211303-011
Matrix: AQUEOUS
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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 3:55:05 AM
Acetone	240	100		µg/L	10	11/17/2012 3:55:05 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromoform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon disulfide	470	100		µg/L	10	11/17/2012 3:55:05 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Chloroform	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 3:55:05 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 3:55:05 AM

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- P Sample pH greater than 2
- RL Reporting Detection Limit
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-011 **Matrix:** AQUEOUS

Client Sample ID: EP-12B
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Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 3:55:05 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 3:55:05 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Styrene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 3:55:05 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 3:55:05 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 3:55:05 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 3:55:05 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 3:55:05 AM
Surr: 1,2-Dichloroethane-d4	81.2	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Dibromofluoromethane	92.0	70-130		%REC	10	11/17/2012 3:55:05 AM
Surr: Toluene-d8	97.0	70-130		%REC	10	11/17/2012 3:55:05 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	12000	0.50		µmhos/cm	50	11/8/2012 1:27:27 PM
SM4500-H+B: PH						Analyst: **JML**
pH	7.91	1.68	H	pH units	1	11/9/2012 6:27:36 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-012 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 11/6/2012 3:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	72	5.0	*	mg/L	50	11/13/2012 4:45:36 PM
Chloride	570	100		mg/L	200	11/8/2012 2:25:42 PM
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Bromide	2.5	2.0		mg/L	20	11/8/2012 2:13:17 PM
Nitrogen, Nitrate (As N)	ND	2.0		mg/L	20	11/8/2012 2:13:17 PM
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	11/8/2012 2:13:17 PM
Sulfate	980	10		mg/L	20	11/8/2012 2:13:17 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.034	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Cadmium	ND	0.0020		mg/L	1	11/9/2012 7:39:40 PM
Calcium	92	1.0		mg/L	1	11/9/2012 7:39:40 PM
Chromium	0.0073	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Copper	ND	0.0060		mg/L	1	11/9/2012 7:39:40 PM
Iron	2.2	0.20	*	mg/L	10	11/9/2012 7:43:00 PM
Lead	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Magnesium	36	1.0		mg/L	1	11/9/2012 7:39:40 PM
Manganese	0.66	0.0020	*	mg/L	1	11/9/2012 7:39:40 PM
Potassium	62	1.0		mg/L	1	11/9/2012 7:39:40 PM
Silver	ND	0.0050		mg/L	1	11/9/2012 7:39:40 PM
Sodium	970	50		mg/L	50	11/14/2012 2:31:35 PM
Zinc	0.099	0.010		mg/L	1	11/9/2012 7:39:40 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.037	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Cadmium	ND	0.0020		mg/L	1	11/15/2012 10:05:37 PM
Chromium	0.0079	0.0060		mg/L	1	11/15/2012 10:05:37 PM
Copper	ND	0.0060		mg/L	1	11/16/2012 9:21:17 PM
Iron	3.1	0.10	*	mg/L	5	11/15/2012 10:08:56 PM
Lead	ND	0.0050		mg/L	1	11/15/2012 10:05:37 PM
Manganese	0.60	0.0020	*	mg/L	1	11/15/2012 10:05:37 PM
Silver	ND	0.0050		mg/L	1	11/27/2012 7:25:59 PM
Zinc	0.066	0.010		mg/L	1	11/16/2012 9:21:17 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0088	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Selenium	0.0072	0.0010		mg/L	1	11/19/2012 4:09:05 PM
Uranium	0.0011	0.0010		mg/L	1	11/19/2012 4:09:05 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0095	0.0025		mg/L	2.5	11/21/2012 11:29:37 AM
Selenium	0.011	0.0025		mg/L	2.5	11/16/2012 4:24:37 PM
Uranium	ND	0.0025		mg/L	2.5	11/16/2012 4:24:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-012 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 11/6/2012 3:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.0022	0.00020	*	mg/L	1	11/12/2012 3:37:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Acenaphthylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Aniline	72	50		µg/L	1	11/9/2012 4:44:33 PM
Anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Azobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benz(a)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(a)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Benzoic acid	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Benzyl alcohol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Butyl benzyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Carbazole	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chloroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chloronaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Chlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Chrysene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-butyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Di-n-octyl phthalate	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dibenzofuran	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Diethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Dimethyl phthalate	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dichlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dimethylphenol	90	50		µg/L	1	11/9/2012 4:44:33 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
2,4-Dinitrophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-012
Matrix: AQUEOUS
Client Sample ID: EP-1
Collection Date: 11/6/2012 3:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2,4-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluoranthene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Fluorene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorobutadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Hexachloroethane	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Isophorone	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylnaphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Methylphenol	410	50		µg/L	1	11/9/2012 4:44:33 PM
3+4-Methylphenol	700	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Naphthalene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
3-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitroaniline	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Nitrobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
4-Nitrophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pentachlorophenol	ND	100		µg/L	1	11/9/2012 4:44:33 PM
Phenanthrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Phenol	1400	100		µg/L	2	11/9/2012 7:23:13 PM
Pyrene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Pyridine	ND	50		µg/L	1	11/9/2012 4:44:33 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	11/9/2012 4:44:33 PM
Surr: 2,4,6-Tribromophenol	76.9	42.9-124		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorobiphenyl	67.6	40-108		%REC	1	11/9/2012 4:44:33 PM
Surr: 2-Fluorophenol	59.2	23.6-94.8		%REC	1	11/9/2012 4:44:33 PM
Surr: 4-Terphenyl-d14	60.6	41.9-103		%REC	1	11/9/2012 4:44:33 PM
Surr: Nitrobenzene-d5	67.3	42.6-114		%REC	1	11/9/2012 4:44:33 PM
Surr: Phenol-d5	45.5	20.3-74.7		%REC	1	11/9/2012 4:44:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Toluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-012 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 11/6/2012 3:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Ethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Naphthalene	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2012 4:26:44 AM
Acetone	410	100		µg/L	10	11/17/2012 4:26:44 AM
Bromobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromodichloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromoform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Bromomethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Butanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon disulfide	320	100		µg/L	10	11/17/2012 4:26:44 AM
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Chloroform	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Chloromethane	ND	30		µg/L	10	11/17/2012 4:26:44 AM
2-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Chlorotoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Dibromochloromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dibromomethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Hexachlorobutadiene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
2-Hexanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Isopropylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
4-Isopropyltoluene	ND	10		µg/L	10	11/17/2012 4:26:44 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-012 **Matrix:** AQUEOUS

Client Sample ID: EP-1
Collection Date: 11/6/2012 3:00:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
4-Methyl-2-pentanone	ND	100		µg/L	10	11/17/2012 4:26:44 AM
Methylene Chloride	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Butylbenzene	ND	30		µg/L	10	11/17/2012 4:26:44 AM
n-Propylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
sec-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Styrene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
tert-Butylbenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,2-DCE	ND	10		µg/L	10	11/17/2012 4:26:44 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichloroethene (TCE)	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Trichlorofluoromethane	ND	10		µg/L	10	11/17/2012 4:26:44 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/17/2012 4:26:44 AM
Vinyl chloride	ND	10		µg/L	10	11/17/2012 4:26:44 AM
Xylenes, Total	ND	15		µg/L	10	11/17/2012 4:26:44 AM
Surr: 1,2-Dichloroethane-d4	85.0	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Dibromofluoromethane	93.1	70-130		%REC	10	11/17/2012 4:26:44 AM
Surr: Toluene-d8	98.1	70-130		%REC	10	11/17/2012 4:26:44 AM
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: **JML**
Conductivity	5500	0.010		µmhos/cm	1	11/8/2012 1:31:32 PM
SM4500-H+B: PH						Analyst: **JML**
pH	8.79	1.68	*H	pH units	1	11/8/2012 1:31:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-013 **Matrix:** AQUEOUS

Client Sample ID: BW To EP-2
Collection Date: 11/6/2012 3:15:00 PM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	1.4	0.50		mg/L	5	11/8/2012 2:38:07 PM
Chloride	49	2.5		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Bromide	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/8/2012 2:38:07 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/8/2012 2:38:07 PM
Sulfate	1900	25		mg/L	50	11/13/2012 5:35:14 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Calcium	1.4	1.0		mg/L	1	11/15/2012 10:12:45 PM
Magnesium	ND	1.0		mg/L	1	11/15/2012 10:12:45 PM
Potassium	7.1	1.0		mg/L	1	11/16/2012 9:24:39 PM
Sodium	1200	20		mg/L	20	11/20/2012 7:47:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-014 **Matrix:** AQUEOUS

Client Sample ID: FIELD BLANK
Collection Date: 11/6/2012 9:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Toluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Ethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Naphthalene	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/8/2012 11:52:09 PM
Acetone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Bromobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromoform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Bromomethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Butanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon disulfide	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Chloroform	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Chloromethane	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dibromomethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
2-Hexanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-014 **Matrix:** AQUEOUS

Client Sample ID: FIELD BLANK
Collection Date: 11/6/2012 9:30:00 AM
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Isopropylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/8/2012 11:52:09 PM
Methylene Chloride	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Butylbenzene	ND	3.0		µg/L	1	11/8/2012 11:52:09 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Styrene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/8/2012 11:52:09 PM
Vinyl chloride	ND	1.0		µg/L	1	11/8/2012 11:52:09 PM
Xylenes, Total	ND	1.5		µg/L	1	11/8/2012 11:52:09 PM
Surr: 1,2-Dichloroethane-d4	83.3	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	11/8/2012 11:52:09 PM
Surr: Toluene-d8	93.1	70-130		%REC	1	11/8/2012 11:52:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-015
Client Sample ID: TRIP BLANK
Collection Date:
Matrix: TRIP BLANK
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Toluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Ethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Naphthalene	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/9/2012 12:19:55 AM
Acetone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Bromobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromodichloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromoform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Bromomethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Butanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon disulfide	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Chloroform	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Chloromethane	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
2-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Chlorotoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromochloromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dibromomethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
2-Hexanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds
Lab ID: 1211303-015 **Matrix:** TRIP BLANK

Client Sample ID: TRIP BLANK
Collection Date:
Received Date: 11/7/2012 1:56:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Isopropylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/9/2012 12:19:55 AM
Methylene Chloride	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Butylbenzene	ND	3.0		µg/L	1	11/9/2012 12:19:55 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Styrene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/9/2012 12:19:55 AM
Vinyl chloride	ND	1.0		µg/L	1	11/9/2012 12:19:55 AM
Xylenes, Total	ND	1.5		µg/L	1	11/9/2012 12:19:55 AM
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Dibromofluoromethane	90.8	70-130		%REC	1	11/9/2012 12:19:55 AM
Surr: Toluene-d8	96.0	70-130		%REC	1	11/9/2012 12:19:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6815**	RunNo: **6815**
Prep Date:	Analysis Date: **11/9/2012**	SeqNo: **197083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6815**	RunNo: **6815**
p Date:	Analysis Date: **11/9/2012**	SeqNo: **197084** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Calcium	52	1.0	50.00	0	105	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Lead	0.51	0.0050	0.5000	0	103	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Selenium	0.49	0.050	0.5000	0	98.8	85	115			
Silver	0.098	0.0050	0.1000	0	98.1	85	115			
Sodium	52	1.0	50.00	0.07959	103	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6815**	RunNo: **6815**
Prep Date:	Analysis Date: **11/9/2012**	SeqNo: **197156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6815**	RunNo: **6815**
Prep Date:	Analysis Date: **11/9/2012**	SeqNo: **197156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6815**	RunNo: **6815**
Prep Date:	Analysis Date: **11/9/2012**	SeqNo: **197157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	103	85	115			
Chromium	0.50	0.0060	0.5000	0	99.8	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Magnesium	53	1.0	50.00	0	106	85	115			
Manganese	0.50	0.0020	0.5000	0	99.3	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Sodium	53	1.0	50.00	0	105	85	115			
Zinc	0.49	0.010	0.5000	0	98.9	85	115			

Sample ID **1211303-001DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **EP-2**	Batch ID: **R6815**	RunNo: **6815**
Prep Date:	Analysis Date: **11/9/2012**	SeqNo: **197159** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Calcium	90	1.0	50.00	37.95	105	70	130			
Chromium	0.51	0.0060	0.5000	0.01220	100	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **1211303-001DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **EP-2** Batch ID: **R6815** RunNo: **6815**
Prep Date: Analysis Date: **11/9/2012** SeqNo: **197159** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.57	0.0060	0.5000	0	114	70	130			
Lead	0.50	0.0050	0.5000	0.002850	99.0	70	130			
Magnesium	68	1.0	50.00	14.20	108	70	130			
Manganese	0.91	0.0020	0.5000	0.3607	109	70	130			
Potassium	85	1.0	50.00	30.90	107	70	130			
Silver	0.10	0.0050	0.1000	0.001830	100	70	130			
Zinc	0.57	0.010	0.5000	0.04521	104	70	130			

Sample ID **1211303-001DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **EP-2** Batch ID: **R6815** RunNo: **6815**
Prep Date: Analysis Date: **11/9/2012** SeqNo: **197160** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.55	0.0020	0.5000	0.03360	104	70	130	0.114	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.295	20	
Calcium	89	1.0	50.00	37.95	103	70	130	1.10	20	
Chromium	0.51	0.0060	0.5000	0.01220	101	70	130	0.0505	20	
[illegible]per	0.57	0.0060	0.5000	0	113	70	130	0.727	20	
[illegible]	0.50	0.0050	0.5000	0.002850	99.1	70	130	0.169	20	
Magnesium	67	1.0	50.00	14.20	105	70	130	2.01	20	
Manganese	0.91	0.0020	0.5000	0.3607	110	70	130	0.477	20	
Potassium	83	1.0	50.00	30.90	105	70	130	1.58	20	
Silver	0.10	0.0050	0.1000	0.001830	99.6	70	130	0.335	20	
Zinc	0.57	0.010	0.5000	0.04521	105	70	130	0.218	20	

Sample ID **1211303-001DMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **EP-2** Batch ID: **R6815** RunNo: **6815**
Prep Date: Analysis Date: **11/9/2012** SeqNo: **197165** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	102	70	130			

Sample ID **1211303-001DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **EP-2** Batch ID: **R6815** RunNo: **6815**
Prep Date: Analysis Date: **11/9/2012** SeqNo: **197166** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	3.8	0.10	2.500	1.195	103	70	130	0.646	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6903**	RunNo: **6903**
Prep Date:	Analysis Date: **11/14/2012**	SeqNo: **199819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6903**	RunNo: **6903**
Prep Date:	Analysis Date: **11/14/2012**	SeqNo: **199820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	52	1.0	50.00	0	103	85	115			
Sodium	53	1.0	50.00	0	106	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6960**	RunNo: **6960**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201334** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R6960**	RunNo: **6960**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201335** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	54	1.0	50.00	0	108	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **MB-4772**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **4772**	RunNo: **6903**
Prep Date: **11/12/2012**	Analysis Date: **11/14/2012**	SeqNo: **199823** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Selenium	ND	0.050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID **LCS-4772**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **4772**	RunNo: **6903**
Prep Date: **11/12/2012**	Analysis Date: **11/14/2012**	SeqNo: **199824** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Copper	0.50	0.0060	0.5000	0	100	85	115			
Iron	0.49	0.020	0.5000	0	98.3	85	115			
Lead	0.48	0.0050	0.5000	0	95.4	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.47	0.0020	0.5000	0	94.6	85	115			
Potassium	50	1.0	50.00	0	101	85	115			
Selenium	0.51	0.050	0.5000	0	102	85	115			
Sodium	52	1.0	50.00	0	103	85	115			
Zinc	0.48	0.010	0.5000	0	96.2	85	115			

Sample ID **MB-4954**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **4954**	RunNo: **7127**
Prep Date: **11/26/2012**	Analysis Date: **11/27/2012**	SeqNo: **206519** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.0050								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **LCS-4954**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **4954**	RunNo: **7127**
Prep Date: **11/26/2012**	Analysis Date: **11/27/2012**	SeqNo: **206520** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.5	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R6990** RunNo: **6990**
Prep Date: Analysis Date: **11/19/2012** SeqNo: **202479** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	107	85	115			
Selenium	0.028	0.0010	0.02500	0	114	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R6990** RunNo: **6990**
Prep Date: Analysis Date: **11/19/2012** SeqNo: **202480** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	107	85	115			
Selenium	0.028	0.0010	0.02500	0	113	85	115			
Uranium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R6990** RunNo: **6990**
Prep Date: Analysis Date: **11/19/2012** SeqNo: **202481** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ıic	0.026	0.0010	0.02500	0	103	85	115			
Selenium	0.027	0.0010	0.02500	0	110	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R6990** RunNo: **6990**
Prep Date: Analysis Date: **11/19/2012** SeqNo: **202482** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB** SampType: **MBLK** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW** Batch ID: **R6990** RunNo: **6990**
Prep Date: Analysis Date: **11/19/2012** SeqNo: **202483** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R6990**	RunNo: **6990**
Prep Date:	Analysis Date: **11/19/2012**	SeqNo: **202484** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7018**	RunNo: **7018**
Prep Date:	Analysis Date: **11/20/2012**	SeqNo: **203372** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0	111	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7018**	RunNo: **7018**
Prep Date:	Analysis Date: **11/20/2012**	SeqNo: **203374** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.029	0.0010	0.02500	0	114	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID	**LLLCS-4772**	SampType: **LCSLL**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**BatchQC**	Batch ID: **4772**		RunNo: **6965**					
Prep Date:	**11/12/2012**	Analysis Date: **11/16/2012**		SeqNo: **201524**		Units: **mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.051	0.0025	0.05000	0	103	85	115			
Selenium	0.057	0.0025	0.05000	0	114	85	115			
Uranium	0.051	0.0025	0.05000	0	102	85	115			

Sample ID	**MB-4772**	SampType: **MBLK**		TestCode: **200.8 ICPMS Metals:Total**					
Client ID:	**PBW**	Batch ID: **4772**		RunNo: **6965**					
Prep Date:	**11/12/2012**	Analysis Date: **11/16/2012**		SeqNo: **201526**		Units: **mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **MB-4773**	SampType: **mblk**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4773**	RunNo: **6853**
Prep Date: **11/12/2012**	Analysis Date: **11/12/2012**	SeqNo: **198561** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4773**	SampType: **lcs**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4773**	RunNo: **6853**
Prep Date: **11/12/2012**	Analysis Date: **11/12/2012**	SeqNo: **198562** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.3	80	120			

Sample ID **1211303-012EMS**	SampType: **ms**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **EP-1**	Batch ID: **4773**	RunNo: **6853**
Prep Date: **11/12/2012**	Analysis Date: **11/12/2012**	SeqNo: **198587** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0063	0.00020	0.005000	0.002212	81.9	75	125			

Sample ID **1211303-012EMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **EP-1**	Batch ID: **4773**	RunNo: **6853**
Prep Date: **11/12/2012**	Analysis Date: **11/12/2012**	SeqNo: **198588** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0065	0.00020	0.005000	0.002212	85.1	75	125	2.44	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6778**	RunNo: **6778**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196104** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6778**	RunNo: **6778**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196105** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.9	90	110			
Chloride	5.0	0.50	5.000	0	101	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.1	90	110			
Bromide	2.5	0.10	2.500	0	98.3	90	110			
...gen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
...sphorus, Orthophosphate (As P	5.2	0.50	5.000	0	104	90	110			
Sulfate	10	0.50	10.00	0	99.8	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6778**	RunNo: **6778**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196160** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6778**	RunNo: **6778**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196162** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	93.6	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- . Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6778**	RunNo: **6778**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196162** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	94.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.6	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.9	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6888**	RunNo: **6888**
Prep Date:	Analysis Date: **11/13/2012**	SeqNo: **199330** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6888**	RunNo: **6888**
Prep Date:	Analysis Date: **11/13/2012**	SeqNo: **199331** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	107	90	110			
Chloride	5.2	0.50	5.000	0	103	90	110			
Sulfate	10	0.50	10.00	0	103	90	110			
Nitrate+Nitrite as N	3.7	0.20	3.500	0	105	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6939**	RunNo: **6939**
Prep Date:	Analysis Date: **11/15/2012**	SeqNo: **200973** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6939**	RunNo: **6939**
Prep Date:	Analysis Date: **11/15/2012**	SeqNo: **200974** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	91.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7034**	RunNo: **7034**
Prep Date:	Analysis Date: **11/20/2012**	SeqNo: **203936** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7034**	RunNo: **7034**
Prep Date:	Analysis Date: **11/20/2012**	SeqNo: **203937** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.5	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R6803**	RunNo: **6803**	
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196913**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6803**	RunNo: **6803**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196913** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.4		10.00		83.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.6	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6803**	RunNo: **6803**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	21	1.0	20.00	0	107	80	120			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	86.9	73.7	122			
Trichloroethene (TCE)	18	1.0	20.00	0	87.7	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6803**	RunNo: **6803**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196916** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.2		10.00		92.2	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201683** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.9	70	130			
Toluene	23	1.0	20.00	0	115	80	120			
Chlorobenzene	22	1.0	20.00	0	108	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.0	73.7	122			
Trichloroethene (TCE)	20	1.0	20.00	0	99.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.0	70	130			
Surr: Dibromofluoromethane	8.2		10.00		82.3	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201699** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201699** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
Dichloropropane	ND	1.0								
Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **201699** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.4	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/17/2012**	SeqNo: **201700** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	70	130			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.5	73.7	122			
Trichloroethene (TCE)	15	1.0	20.00	0	72.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.0		10.00		79.9	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.7	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/17/2012**	SeqNo: **201746** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/17/2012**	SeqNo: **201746** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
›momethane	ND	1.0								
Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **b7**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/17/2012**	SeqNo: **201746** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		88.2	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.9	70	130			
Surr: Toluene-d8	9.9		10.00		98.5	70	130			

Sample ID **100ng lcs3**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/17/2012**	SeqNo: **201747** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.5	70	130			
Toluene	23	1.0	20.00	0	117	80	120			
Chlorobenzene	22	1.0	20.00	0	110	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	80.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.4		10.00		84.0	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.7	70	130			
Surr: Dibromofluoromethane	8.5		10.00		85.5	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **202041** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **202041** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
›romethane	ND	3.0								
ılorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6966**	RunNo: **6966**
Prep Date:	Analysis Date: **11/16/2012**	SeqNo: **202041** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.7	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.0	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **mb-4737**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4737**	RunNo: **6842**
Prep Date: **11/8/2012**	Analysis Date: **11/9/2012**	SeqNo: **198208** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
l benzyl phthalate	ND	10								
nazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211303**

Hall Environmental Analysis Laboratory, Inc.

11-Dec-12

Client: Western Refining Southwest, Gallup
Project: 2012 Semi-Annual Ponds

Sample ID **mb-4737**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **4737**	RunNo: **6842**	
Prep Date: **11/8/2012**	Analysis Date: **11/9/2012**	SeqNo: **198208**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	220		200.0		108	42.9	124			
Surr: 2-Fluorobiphenyl	97		100.0		97.0	40	108			
Surr: 2-Fluorophenol	160		200.0		77.5	23.6	94.8			
Surr: 4-Terphenyl-d14	84		100.0		84.5	41.9	103			
Surr: Nitrobenzene-d5	100		100.0		102	42.6	114			
Surr: Phenol-d5	120		200.0		58.1	20.3	74.7			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **lcs-4737** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **4737** RunNo: **6842**

Prep Date: **11/8/2012** Analysis Date: **11/9/2012** SeqNo: **198209** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.8	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	73.7	46.3	108			
2-Chlorophenol	140	10	200.0	0	68.6	38	99.3			
1,4-Dichlorobenzene	58	10	100.0	0	58.2	30.8	80.6			
2,4-Dinitrotoluene	75	10	100.0	0	74.8	46.1	117			
N-Nitrosodi-n-propylamine	83	10	100.0	0	82.7	39.3	110			
4-Nitrophenol	69	10	200.0	0	34.3	29.8	67			
Pentachlorophenol	110	20	200.0	0	54.6	32.2	95.7			
Phenol	91	10	200.0	0	45.6	27	64.8			
Pyrene	66	10	100.0	0	65.7	44.7	97.3			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.2	36.6	86.7			
Surr: 2,4,6-Tribromophenol	200		200.0		100	42.9	124			
Surr: 2-Fluorobiphenyl	83		100.0		82.7	40	108			
Surr: 2-Fluorophenol	140		200.0		70.4	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.9	103			
Surr: Nitrobenzene-d5	86		100.0		85.8	42.6	114			
Surr: Phenol-d5	110		200.0		53.4	20.3	74.7			

Sample ID **lcsd-4737** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **4737** RunNo: **6842**

Prep Date: **11/8/2012** Analysis Date: **11/9/2012** SeqNo: **198210** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	72	10	100.0	0	72.5	43.3	92	3.74	25	
4-Chloro-3-methylphenol	140	10	200.0	0	70.6	46.3	108	4.32	32.7	
2-Chlorophenol	150	10	200.0	0	73.7	38	99.3	7.18	20	
1,4-Dichlorobenzene	60	10	100.0	0	60.2	30.8	80.6	3.45	20	
2,4-Dinitrotoluene	76	10	100.0	0	76.3	46.1	117	2.04	29.9	
N-Nitrosodi-n-propylamine	82	10	100.0	0	81.7	39.3	110	1.31	23.1	
4-Nitrophenol	72	10	200.0	0	35.8	29.8	67	4.16	40.5	
Pentachlorophenol	110	20	200.0	0	52.9	32.2	95.7	3.03	37.3	
Phenol	88	10	200.0	0	44.2	27	64.8	3.05	20	
Pyrene	71	10	100.0	0	70.6	44.7	97.3	7.25	26.5	
1,2,4-Trichlorobenzene	59	10	100.0	0	59.2	36.6	86.7	4.98	27.2	
Surr: 2,4,6-Tribromophenol	190		200.0		96.3	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	85		100.0		84.7	40	108	0	0	
Surr: 2-Fluorophenol	140		200.0		68.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	76		100.0		76.1	41.9	103	0	0	
Surr: Nitrobenzene-d5	82		100.0		81.8	42.6	114	0	0	
Surr: Phenol-d5	100		200.0		51.6	20.3	74.7	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **1211303-012c dup**	SampType: **DUP**	TestCode: **EPA 120.1: Specific Conductance**
Client ID: **EP-1**	Batch ID: **R6782**	RunNo: **6782**
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196507** Units: **µmhos/cm**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	5500	0.010						0.145	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211303**

11-Dec-12

Client: Western Refining Southwest, Gallup

Project: 2012 Semi-Annual Ponds

Sample ID **1211303-012c dup**	SampType: **DUP**	TestCode: **SM4500-H+B: pH**							
Client ID: **EP-1**	Batch ID: **R6782**	RunNo: **6782**							
Prep Date:	Analysis Date: **11/8/2012**	SeqNo: **196521**	Units: **pH units**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.80	1.68								*H

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1211303

Received by/date: MG 11/07/12

Logged By: Ashley Gallegos 11/7/2012 1:56:00 PM

Completed By: Ashley Gallegos 11/7/2012 2:33:39 PM

Reviewed By: IO 11/07/2012

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ☑	No ☑	
10. Was preservative added to bottles?	Yes ☑	~~No~~ ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

0016-COOLER-ADDED 1mL HNO3 FOR ACCEPTABLE pH. 0123-ADDED 0.4mL HNO3 FOR ACCEPTABLE. 11/07/12

# of preserved bottles checked for pH: 38 (<2 or >12 unless noted)

Adjusted? YES.

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211303	8260+MTBE	8270 + phenols	WQCC METALS - TOTAL	WQCC METALS - DISS (FILTERED	GEN CHEM (pH, Spec Cond, Cations/Anions)											Air Bubbles (Y or N)
11/6/2012	1015	H20	EP-2			-001	X	X	X	X	X											
11/6/2012	1035	H20	EP-3			-002	X	X	X	X	X											
11/6/2012	1100	H20	EP-4			-003	X	X	X	X	X											
11/6/2012	1130	H20	EP-5			-004	X	X	X	X	X											
11/6/2012	1200	H20	EP-6			-005	X	X	X	X	X											
11/6/2012	1230	H20	EP-9			-006	X	X	X	X	X											
11/6/2012	1300	H20	EP-8			-007	X	X	X	X	X											
11/6/2012	1330	H20	EP-7			-008	X	X	X	X	X											
11/6/2012	1345	H20	EP-11			-009	X	X	X	X	X											
11/6/2012	1400	H20	EP-12A			-010	X	X	X	X	X											
11/6/2012	1425	H20	EP-12B			-011	X	X	X	X	X											
11/6/2012	1500	H20	EP-1			-012	X	X	X	X	X											

Date:	Time:	Relinquished by:	Received by:	Date	Time
11-7-12	1546			11/07/12	1356
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: WQCC Metals to include RCRA 8 Metals

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: Western Refining Company

GALLUP REFINERY

Mailing Address:

RT 3 BOX 7, GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

2012 SEMI-ANNUAL - PONDS

Project #:

EP-1 THRU 12B

Project Manager:

C. JOHNSON (cheryl.johnson@wnr.com)

Sampler: C. JOHNSON

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 121303	8260+MTBE		MAJOR CATIONS/ANIONS													Air Bubbles (Y or N)
11/6/2012	~~2/23/1984~~ 1515	H20	BW TO EP-2			-013			X													
11/6/2012	0930	H20	FIELD BLANK			-014	X															
11		H20	TRIP BLANK			-015	X															

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
11-7-12	1540		Michelle Gonzales	11/07/12	1356	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 14, 2012

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling OrderNo.: 1212233

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/5/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1212233**
Date Reported: **12/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212233-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 12/5/2012 9:55:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Acenaphthylene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Aniline	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Anthracene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Azobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benz(a)anthracene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benzo(a)pyrene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Benzoic acid	ND	100		µg/L	1	12/7/2012 6:14:58 PM
Benzyl alcohol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Butyl benzyl phthalate	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Carbazole	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Chloroaniline	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Chloronaphthalene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Chlorophenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Chrysene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Di-n-butyl phthalate	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Di-n-octyl phthalate	ND	100		µg/L	1	12/7/2012 6:14:58 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Dibenzofuran	ND	50		µg/L	1	12/7/2012 6:14:58 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Diethyl phthalate	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Dimethyl phthalate	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/7/2012 6:14:58 PM
2,4-Dimethylphenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/7/2012 6:14:58 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/7/2012 6:14:58 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Fluoranthene	ND	50		µg/L	1	12/7/2012 6:14:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212233-001 **Matrix:** AQUEOUS

Client Sample ID: Infl to AL-2
Collection Date: 12/5/2012 9:55:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Fluorene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Hexachlorobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Hexachlorobutadiene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Hexachloroethane	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Isophorone	ND	50		µg/L	1	12/7/2012 6:14:58 PM
1-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Methylphenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
3+4-Methylphenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	12/7/2012 6:14:58 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	12/7/2012 6:14:58 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Naphthalene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:14:58 PM
3-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Nitrobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2-Nitrophenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
4-Nitrophenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Pentachlorophenol	ND	100		µg/L	1	12/7/2012 6:14:58 PM
Phenanthrene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Phenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Pyrene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Pyridine	ND	50		µg/L	1	12/7/2012 6:14:58 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/7/2012 6:14:58 PM
Surr: 2,4,6-Tribromophenol	90.6	42.9-124		%REC	1	12/7/2012 6:14:58 PM
Surr: 2-Fluorobiphenyl	81.9	40-108		%REC	1	12/7/2012 6:14:58 PM
Surr: 2-Fluorophenol	59.4	23.6-94.8		%REC	1	12/7/2012 6:14:58 PM
Surr: 4-Terphenyl-d14	69.0	41.9-103		%REC	1	12/7/2012 6:14:58 PM
Surr: Nitrobenzene-d5	81.1	42.6-114		%REC	1	12/7/2012 6:14:58 PM
Surr: Phenol-d5	38.0	20.3-74.7		%REC	1	12/7/2012 6:14:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Infl to EP-1
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 10:11:00 AM
Lab ID: 1212233-002
Matrix: AQUEOUS
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Acenaphthylene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Aniline	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Anthracene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Azobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benz(a)anthracene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benzo(a)pyrene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Benzoic acid	ND	100		µg/L	1	12/7/2012 6:45:25 PM
Benzyl alcohol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Butyl benzyl phthalate	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Carbazole	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Chloroaniline	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Chloronaphthalene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Chlorophenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Chrysene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Di-n-butyl phthalate	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Di-n-octyl phthalate	ND	100		µg/L	1	12/7/2012 6:45:25 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Dibenzofuran	ND	50		µg/L	1	12/7/2012 6:45:25 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Diethyl phthalate	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Dimethyl phthalate	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/7/2012 6:45:25 PM
2,4-Dimethylphenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/7/2012 6:45:25 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/7/2012 6:45:25 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Fluoranthene	ND	50		µg/L	1	12/7/2012 6:45:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212233-002 **Matrix:** AQUEOUS

Client Sample ID: Infl to EP-1
Collection Date: 12/5/2012 10:11:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Fluorene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Hexachlorobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Hexachlorobutadiene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Hexachloroethane	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Isophorone	ND	50		µg/L	1	12/7/2012 6:45:25 PM
1-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Methylphenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
3+4-Methylphenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	12/7/2012 6:45:25 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	12/7/2012 6:45:25 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Naphthalene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:45:25 PM
3-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Nitroaniline	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Nitrobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2-Nitrophenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
4-Nitrophenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Pentachlorophenol	ND	100		µg/L	1	12/7/2012 6:45:25 PM
Phenanthrene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Phenol	62	50		µg/L	1	12/7/2012 6:45:25 PM
Pyrene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Pyridine	ND	50		µg/L	1	12/7/2012 6:45:25 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/7/2012 6:45:25 PM
Surr: 2,4,6-Tribromophenol	77.0	42.9-124		%REC	1	12/7/2012 6:45:25 PM
Surr: 2-Fluorobiphenyl	66.6	40-108		%REC	1	12/7/2012 6:45:25 PM
Surr: 2-Fluorophenol	45.4	23.6-94.8		%REC	1	12/7/2012 6:45:25 PM
Surr: 4-Terphenyl-d14	66.2	41.9-103		%REC	1	12/7/2012 6:45:25 PM
Surr: Nitrobenzene-d5	69.1	42.6-114		%REC	1	12/7/2012 6:45:25 PM
Surr: Phenol-d5	35.5	20.3-74.7		%REC	1	12/7/2012 6:45:25 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 11:45:00 AM
Lab ID: 1212233-003
Matrix: AQUEOUS
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Toluene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Ethylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Naphthalene	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2012 1:36:03 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2012 1:36:03 AM
Acetone	ND	10		µg/L	1	12/7/2012 1:36:03 AM
Bromobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Bromoform	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Bromomethane	ND	3.0		µg/L	1	12/7/2012 1:36:03 AM
2-Butanone	ND	10		µg/L	1	12/7/2012 1:36:03 AM
Carbon disulfide	ND	10		µg/L	1	12/7/2012 1:36:03 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Chlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Chloroethane	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
Chloroform	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Chloromethane	ND	3.0		µg/L	1	12/7/2012 1:36:03 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Dibromomethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
2-Hexanone	ND	10		µg/L	1	12/7/2012 1:36:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212233-003 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 12/5/2012 11:45:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/7/2012 1:36:03 AM
Methylene Chloride	ND	3.0		µg/L	1	12/7/2012 1:36:03 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/7/2012 1:36:03 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Styrene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/7/2012 1:36:03 AM
Vinyl chloride	ND	1.0		µg/L	1	12/7/2012 1:36:03 AM
Xylenes, Total	ND	1.5		µg/L	1	12/7/2012 1:36:03 AM
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	12/7/2012 1:36:03 AM
Surr: 4-Bromofluorobenzene	95.9	70-130		%REC	1	12/7/2012 1:36:03 AM
Surr: Dibromofluoromethane	89.9	70-130		%REC	1	12/7/2012 1:36:03 AM
Surr: Toluene-d8	100	70-130		%REC	1	12/7/2012 1:36:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1212233**
Date Reported: **12/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB-2
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 11:49:00 AM
Lab ID: 1212233-004 **Matrix:** AQUEOUS **Received Date:** 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Toluene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Ethylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Naphthalene	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2012 2:04:18 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/7/2012 2:04:18 AM
Acetone	ND	10		µg/L	1	12/7/2012 2:04:18 AM
Bromobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Bromoform	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Bromomethane	ND	3.0		µg/L	1	12/7/2012 2:04:18 AM
2-Butanone	ND	10		µg/L	1	12/7/2012 2:04:18 AM
Carbon disulfide	ND	10		µg/L	1	12/7/2012 2:04:18 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Chlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Chloroethane	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
Chloroform	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Chloromethane	ND	3.0		µg/L	1	12/7/2012 2:04:18 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Dibromomethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
2-Hexanone	ND	10		µg/L	1	12/7/2012 2:04:18 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212233-004 **Matrix:** AQUEOUS

Client Sample ID: EB-2
Collection Date: 12/5/2012 11:49:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/7/2012 2:04:18 AM
Methylene Chloride	ND	3.0		µg/L	1	12/7/2012 2:04:18 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/7/2012 2:04:18 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Styrene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/7/2012 2:04:18 AM
Vinyl chloride	ND	1.0		µg/L	1	12/7/2012 2:04:18 AM
Xylenes, Total	ND	1.5		µg/L	1	12/7/2012 2:04:18 AM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	1	12/7/2012 2:04:18 AM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	1	12/7/2012 2:04:18 AM
Surr: Dibromofluoromethane	87.4	70-130		%REC	1	12/7/2012 2:04:18 AM
Surr: Toluene-d8	97.5	70-130		%REC	1	12/7/2012 2:04:18 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7320**	RunNo: **7320**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212359** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	12		10.00		117	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.9	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **100ng lcsd**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7320**	RunNo: **7320**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212368** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.3	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7346**	RunNo: **7346**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7346**	RunNo: **7346**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,[illegible]chloropropene	ND	1.0								
[illegible]hlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7346**	RunNo: **7346**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213165** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.0	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.4	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7346**	RunNo: **7346**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213168** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.7	70	130			
Toluene	19	1.0	20.00	0	96.2	80	120			
Chlorobenzene	19	1.0	20.00	0	93.5	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	99.1	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	79.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.1	70	130			
Surr: Toluene-d8	9.6		10.00		96.0	70	130			

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7320**	RunNo: **7320**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **214604** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	12		10.00		117	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		85.9	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **100ng lcsd**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7320**	RunNo: **7320**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **214605** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		96.5	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.3	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **mb-5155**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **5155**	RunNo: **7389**	
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214031**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butylbenzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **mb-5155**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **5155**	RunNo: **7389**	
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214031**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		90.4	42.9	124			
Surr: 2-Fluorobiphenyl	86		100.0		86.3	40	108			
Surr: 2-Fluorophenol	150		200.0		76.6	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.9	103			
Surr: Nitrobenzene-d5	92		100.0		92.3	42.6	114			
Surr: Phenol-d5	100		200.0		50.8	20.3	74.7			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212233**

14-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **lcs-5155**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214038** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.8	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	77.0	46.3	108			
2-Chlorophenol	140	10	200.0	0	70.0	38	99.3			
1,4-Dichlorobenzene	71	10	100.0	0	70.8	30.8	80.6			
2,4-Dinitrotoluene	82	10	100.0	0	82.4	46.1	117			
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.7	39.3	110			
4-Nitrophenol	74	10	200.0	0	36.9	29.8	67			
Pentachlorophenol	110	20	200.0	0	55.6	32.2	95.7			
Phenol	83	10	200.0	0	41.4	27	64.8			
Pyrene	73	10	100.0	0	72.7	44.7	97.3			
1,2,4-Trichlorobenzene	72	10	100.0	0	71.6	36.6	86.7			
Surr: 2,4,6-Tribromophenol	170		200.0		86.8	42.9	124			
Surr: 2-Fluorobiphenyl	90		100.0		90.2	40	108			
Surr: 2-Fluorophenol	130		200.0		65.5	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.9	103			
Surr: Nitrobenzene-d5	87		100.0		86.7	42.6	114			
Surr: Phenol-d5	98		200.0		49.0	20.3	74.7			

Sample ID **lcsd-5155**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214043** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.9	43.3	92	5.11	25	
4-Chloro-3-methylphenol	150	10	200.0	0	75.7	46.3	108	1.61	32.7	
2-Chlorophenol	150	10	200.0	0	76.2	38	99.3	8.54	20	
1,4-Dichlorobenzene	73	10	100.0	0	72.8	30.8	80.6	2.76	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.3	46.1	117	2.56	29.9	
N-Nitrosodi-n-propylamine	78	10	100.0	0	77.7	39.3	110	3.88	23.1	
4-Nitrophenol	72	10	200.0	0	36.0	29.8	67	2.30	40.5	
Pentachlorophenol	110	20	200.0	0	54.6	32.2	95.7	1.80	37.3	
Phenol	88	10	200.0	0	43.9	27	64.8	5.79	20	
Pyrene	69	10	100.0	0	69.4	44.7	97.3	4.67	26.5	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	36.6	86.7	0.588	27.2	
Surr: 2,4,6-Tribromophenol	190		200.0		93.4	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.9	40	108	0	0	
Surr: 2-Fluorophenol	140		200.0		71.3	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	75		100.0		74.5	41.9	103	0	0	
Surr: Nitrobenzene-d5	88		100.0		88.0	42.6	114	0	0	
Surr: Phenol-d5	100		200.0		51.8	20.3	74.7	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1212233

Received by/date: MG 12/05/12

Logged By: Anne Thorne — 12/5/2012 2:05:00 PM — Anne Thorne

Completed By: Anne Thorne — 12/5/2012 — Anne Thorne

Reviewed By: IO — 12/05/2012

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Not Present			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 4th QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☑ Yes ☐ No

Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1212233	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	Air Bubbles (Y or N)
~~2/5/12~~	~~0955~~	~~W~~	~~Infl to AL-1~~				X	X	
2/5/12	0955	W	Infl to AL-2	1-AMBER	NONE	-001	X	X	
2/5/12	1011	W	Infl to EP-1	1-AMBER	NONE	-002	X	X	
2/5/12	1145	W	FIELD BLANK	3-VOAs	3-HCL	-003	X		
2/5/12	1149	W	EB-2	3-VOAs	3-HCL	-004	X		

Date: 2/5/12 Time: 1405 Relinquished by:

Received by: Date 12/5/12 Time 1405

Date: Time: Relinquished by:

Received by: Date Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 20, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: BZ Strip Soil Confirmation

OrderNo.: 1212159

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/3/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1212159**
Date Reported: **12/20/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: BZ Strip Soil Confirmation
Lab ID: 1212159-001 **Matrix:** SOIL

Client Sample ID: BZ Strip-Soil Confirmation
Collection Date: 11/30/2012 12:50:00 PM
Received Date: 12/3/2012 1:20:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **MMD**
Diesel Range Organics (DRO)	830	200		mg/Kg	20	12/6/2012 11:40:03 AM
Surr: DNOP	0	72.4-120	S	%REC	20	12/6/2012 11:40:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: BFB	94.0	84-116		%REC	1	12/6/2012 1:48:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Toluene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/6/2012 1:48:10 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/6/2012 1:48:10 PM
Surr: 4-Bromofluorobenzene	95.4	80-120		%REC	1	12/6/2012 1:48:10 PM
MERCURY, TCLP						Analyst: **TMG**
Mercury	ND	0.020		mg/L	1	12/13/2012 3:39:35 PM
EPA METHOD 6010B: TCLP METALS						Analyst: **ELS**
Arsenic	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Barium	ND	100		mg/L	1	12/10/2012 10:19:34 AM
Cadmium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Chromium	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Lead	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
Selenium	ND	1.0		mg/L	1	12/10/2012 10:19:34 AM
Silver	ND	5.0		mg/L	1	12/10/2012 10:19:34 AM
VOLATILES BY 8260B/1311						Analyst: **RAA**
Benzene	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
2-Butanone	ND	10		mg/L	1	12/14/2012 5:48:57 AM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Chlorobenzene	ND	100		mg/L	1	12/14/2012 5:48:57 AM
Chloroform	ND	6.0		mg/L	1	12/14/2012 5:48:57 AM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/14/2012 5:48:57 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/14/2012 5:48:57 AM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/14/2012 5:48:57 AM
Vinyl chloride	ND	0.20		mg/L	1	12/14/2012 5:48:57 AM
Surr: 1,2-Dichloroethane-d4	89.4	69.9-130		%REC	1	12/14/2012 5:48:57 AM
Surr: 4-Bromofluorobenzene	102	71.2-123		%REC	1	12/14/2012 5:48:57 AM
Surr: Dibromofluoromethane	85.9	73.9-134		%REC	1	12/14/2012 5:48:57 AM
Surr: Toluene-d8	96.0	81.9-122		%REC	1	12/14/2012 5:48:57 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121206040
Project Name: 1212159

Analytical Results Report

Sample Number 121206040-001 **Sampling Date** 11/30/2012 **Date/Time Received** 12/6/2012 10:45 AM
Client Sample ID 1212159-001C / BZ STRIP-SOIL CONFIRMATION **Sampling Time** 12:50 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	0.378	mg/Kg	0.3	12/12/2012	CRW	SW846 CH7	
Ignitability	Negative			12/7/2012	JWC	EPA 1030	
pH	8.19	ph Units		12/7/2012	ETL	EPA 9045	
Reactive sulfide	75.3	mg/kg	27	12/13/2012	JTT	SW846 CH7	
%moisture	8.5	Percent		12/12/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5122**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **5122**	RunNo: **7319**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **212356** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		98.0	72.4	120			

Sample ID **LCS-5122**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **5122**	RunNo: **7319**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **212357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.2	47.4	122			
Surr: DNOP	4.2		5.000		84.5	72.4	120			

Sample ID **1212091-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **5122**	RunNo: **7319**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **212656** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	790	10	51.98	567.8	424	12.6	148			S
Surr: DNOP	6.1		5.198		117	72.4	120			

Sample ID **1212091-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **5122**	RunNo: **7319**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **212678** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	900	9.9	49.60	567.8	663	12.6	148	12.9	22.5	S
Surr: DNOP	7.0		4.960		141	72.4	120	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5125**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213035** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.7	84	116			

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213036** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.2	74	117			
Surr: BFB	930		1000		92.5	84	116			

Sample ID **1212182-003AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213071** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.08	0	88.5	70	130			
Surr: BFB	920		963.4		95.3	84	116			

Sample ID **1212182-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.8	24.25	0	83.0	70	130	5.67	22.1	
Surr: BFB	890		969.9		91.4	84	116	0	0	

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7362**
Prep Date: **12/5/2012**	Analysis Date: **12/7/2012**	SeqNo: **214058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	86.7	74	117			
Surr: BFB	930		1000		92.7	84	116			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5125**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213118** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

Sample ID **LCS-5125**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213119** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	98.6	76.3	117			
Toluene	0.99	0.050	1.000	0	99.0	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	77	116			
Xylenes, Total	3.0	0.10	3.000	0	100	76.7	117			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID **1212159-001AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213123** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.049	0.9709	0	104	67.2	113			
Toluene	1.0	0.049	0.9709	0	105	62.1	116			
Ethylbenzene	1.0	0.049	0.9709	0.004829	107	67.9	127			
Xylenes, Total	3.1	0.097	2.913	0	107	60.6	134			
Surr: 4-Bromofluorobenzene	0.95		0.9709		97.6	80	120			

Sample ID **1212159-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5125**	RunNo: **7329**
Prep Date: **12/5/2012**	Analysis Date: **12/6/2012**	SeqNo: **213124** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9699	0	103	67.2	113	1.58	14.3	
Toluene	1.0	0.048	0.9699	0	105	62.1	116	0.511	15.9	
Ethylbenzene	1.0	0.048	0.9699	0.004829	106	67.9	127	0.756	14.4	
Xylenes, Total	3.1	0.097	2.910	0	106	60.6	134	0.915	12.6	
Surr: 4-Bromofluorobenzene	0.97		0.9699		99.6	80	120	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **mb-5145** SampType: **MBLK** TestCode: **Volatiles by 8260B/1311**

Client ID: **PBS** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		89.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		100	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		86.5	73.9	134			
Surr: Toluene-d8	0.20		0.2000		98.1	81.9	122			

Sample ID **lcs-5145** SampType: **LCS** TestCode: **Volatiles by 8260B/1311**

Client ID: **LCSS** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.30	0.4000	0	102	51.1	171			
Chlorobenzene	0.41	0.30	0.4000	0	104	36.1	191			
1,1-Dichloroethene	0.43	0.30	0.4000	0	107	49.1	162			
Trichloroethene (TCE)	0.33	0.30	0.4000	0	83.0	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		90.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.21		0.2000		104	71.2	123			
Surr: Dibromofluoromethane	0.17		0.2000		83.2	73.9	134			
Surr: Toluene-d8	0.19		0.2000		96.0	81.9	122			

Sample ID **1212159-001ams** SampType: **MS** TestCode: **Volatiles by 8260B/1311**

Client ID: **BZ Strip-Soil Confir** Batch ID: **5145** RunNo: **7501**

Prep Date: **12/6/2012** Analysis Date: **12/14/2012** SeqNo: **217713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	100	51.1	171			
Chlorobenzene	0.42	0.30	0.4000	0	105	36.1	191			
1,1-Dichloroethene	0.42	0.30	0.4000	0	106	49.1	162			
Trichloroethene (TCE)	0.34	0.30	0.4000	0	84.3	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		92.0	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		101	71.2	123			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **1212159-001ams**	SampType: **MS**	TestCode: **Volatiles by 8260B/1311**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5145**	RunNo: **7501**
Prep Date: **12/6/2012**	Analysis Date: **12/14/2012**	SeqNo: **217713** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.18		0.2000		87.7	73.9	134			
Surr: Toluene-d8	0.19		0.2000		95.1	81.9	122			

Sample ID **1212159-001amsd**	SampType: **MSD**	TestCode: **Volatiles by 8260B/1311**
Client ID: **BZ Strip-Soil Confir**	Batch ID: **5145**	RunNo: **7501**
Prep Date: **12/6/2012**	Analysis Date: **12/14/2012**	SeqNo: **217714** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.30	0.4000	0	99.3	51.1	171	1.04	0	
Chlorobenzene	0.43	0.30	0.4000	0	107	36.1	191	2.30	0	
1,1-Dichloroethene	0.40	0.30	0.4000	0	100	49.1	162	4.88	0	
Trichloroethene (TCE)	0.32	0.30	0.4000	0	80.7	41.2	166	4.33	0	
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		92.8	69.9	130	0	0	
Surr: 4-Bromofluorobenzene	0.21		0.2000		103	71.2	123	0	0	
Surr: Dibromofluoromethane	0.17		0.2000		84.9	73.9	134	0	0	
Surr: Toluene-d8	0.20		0.2000		98.6	81.9	122	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **MB-5169**	SampType: **MBLK**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **PBW**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214402** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID **LCS-5169**	SampType: **LCS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **LCSW**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214404** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0.02585	107	80	120			
Barium	ND	100	0.5000	0	100	80	120			
Cadmium	ND	1.0	0.5000	0	103	80	120			
Chromium	ND	5.0	0.5000	0	99.6	80	120			
[illegible]	ND	5.0	0.5000	0	99.0	80	120			
[illegible]um	ND	1.0	0.5000	0	101	80	120			
Silver	ND	5.0	0.1000	0.004430	102	80	120			

Sample ID **1212007-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **BatchQC**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214408** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	114	75	125			
Cadmium	ND	1.0	0.5000	0	103	75	125			
Chromium	ND	5.0	0.5000	0.005700	95.1	75	125			
Lead	ND	5.0	0.5000	0	92.2	75	125			
Selenium	ND	1.0	0.5000	0	84.2	75	125			
Silver	ND	5.0	0.1000	0	106	75	125			

Sample ID **1212007-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: TCLP Metals**
Client ID: **BatchQC**	Batch ID: **5169**	RunNo: **7401**
Prep Date: **12/9/2012**	Analysis Date: **12/10/2012**	SeqNo: **214409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	112	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	102	75	125	0	20	
Chromium	ND	5.0	0.5000	0.005700	93.0	75	125	0	20	
Lead	ND	5.0	0.5000	0	90.9	75	125	0	20	

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212159**

20-Dec-12

Client: Western Refining Southwest, Gallup

Project: BZ Strip Soil Confirmation

Sample ID **1212007-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214409** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	1.0	0.5000	0	86.7	75	125	0	20	
Silver	ND	5.0	0.1000	0	105	75	125	0	20	

Sample ID **1212007-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214427** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	500	0.5000	1.240	94.3	75	125			

Sample ID **1212007-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: TCLP Metals**

Client ID: **BatchQC** Batch ID: **5169** RunNo: **7401**

Prep Date: **12/9/2012** Analysis Date: **12/10/2012** SeqNo: **214428** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	500	0.5000	1.240	93.3	75	125	0	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2.
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1212159**

Received by/date: MG 12/03/12

Logged By: **Ashley Gallegos** 12/3/2012 1:20:00 PM AG

Completed By: **Ashley Gallegos** 12/4/2012 5:26:44 PM AG

Reviewed By: DR 12/5/12

Chain of Custody

1.	Were seals intact?	Yes ✔	No	Not Present
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING

GALLUP REFINERY

Mailing Address: Route 3 Box 7

Gallup, NM 87301

Phone #: 505 - 722-3833

Email or Fax#: 505-863-0930

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

Accreditation:

☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard X Rush

Project Name:

BZ Strip Soil Confirmation

Project #:

Clean up - BZ Strip Soil - Confirmation

Project Manager:

Cheryl Johnson

Cheryl.johnson@wnr.com

Sampler: C. Johnson

On Ice: ☒ Yes ☐ No

Sample Temperature: 2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1212159	Analysis Request: TPH 8015B DRO/GRO	8021B (BTEX + MTBE) 8260B	8260B - TCLP	RCI	METALS RCRA 8 - TCLP	Air Bubbles (Y or N)
11/30/2012	1250	Soil	Bz Strip-Soil Confirmation	5-4oz jar	None	-001	X	X	X	X	X	

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/30/12	1400			12/03/12	1320
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 26, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling OrderNo.: 1211A34

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 3 sample(s) on 11/29/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211A34**
Date Reported: **12/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A34-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 11/27/2012 7:25:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2012 10:31:03 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 10:31:03 AM
Surr: DNOP	119	79.5-166		%REC	1	11/30/2012 10:31:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/4/2012 12:03:54 AM
Surr: BFB	93.5	51.9-148		%REC	1	12/4/2012 12:03:54 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.50		mg/L	5	11/29/2012 5:23:27 PM
Chloride	72	2.5		mg/L	5	11/29/2012 5:23:27 PM
Bromide	0.75	0.50		mg/L	5	11/29/2012 5:23:27 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/29/2012 5:23:27 PM
Sulfate	180	2.5		mg/L	5	11/29/2012 5:23:27 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	11/29/2012 5:48:16 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.033	0.010		mg/L	5	12/11/2012 8:53:04 PM
Cadmium	ND	0.010		mg/L	5	12/11/2012 8:53:04 PM
Calcium	ND	5.0		mg/L	5	12/11/2012 8:53:04 PM
Chromium	ND	0.030		mg/L	5	12/11/2012 8:53:04 PM
Copper	ND	0.030		mg/L	5	12/12/2012 5:26:59 PM
Iron	ND	0.10		mg/L	5	12/11/2012 8:53:04 PM
Lead	ND	0.025		mg/L	5	12/11/2012 8:53:04 PM
Magnesium	ND	5.0		mg/L	5	12/11/2012 8:53:04 PM
Manganese	ND	0.010		mg/L	5	12/11/2012 8:53:04 PM
Potassium	ND	5.0		mg/L	5	12/11/2012 8:53:04 PM
Silver	ND	0.025		mg/L	5	12/11/2012 8:53:04 PM
Sodium	280	5.0		mg/L	5	12/12/2012 5:26:59 PM
Zinc	ND	0.050		mg/L	5	12/11/2012 8:53:04 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.035	0.0020		mg/L	1	12/10/2012 10:00:41 PM
Cadmium	ND	0.0020		mg/L	1	12/10/2012 10:00:41 PM
Chromium	ND	0.0060		mg/L	1	12/10/2012 10:00:41 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 5:37:24 PM
Iron	0.18	0.020		mg/L	1	12/10/2012 10:00:41 PM
Lead	ND	0.0050		mg/L	1	12/10/2012 10:00:41 PM
Manganese	0.013	0.0020		mg/L	1	12/10/2012 10:00:41 PM
Silver	ND	0.0050		mg/L	1	12/10/2012 10:00:41 PM
Zinc	ND	0.010		mg/L	1	12/11/2012 5:37:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0012	0.0010		mg/L	1	12/3/2012 4:22:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A34-001 **Matrix:** AQUEOUS

Client Sample ID: OW-1
Collection Date: 11/27/2012 7:25:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.0040	0.0010		mg/L	1	12/3/2012 4:22:21 PM
Uranium	0.043	0.0050	*	mg/L	5	12/12/2012 3:11:23 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	12/10/2012 3:47:09 PM
Selenium	0.0026	0.0025		mg/L	2.5	12/10/2012 3:47:09 PM
Uranium	0.045	0.0025	*	mg/L	2.5	12/10/2012 3:47:09 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:37:22 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Toluene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Ethylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Methyl tert-butyl ether (MTBE)	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2,4-Trimethylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,3,5-Trimethylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2-Dichloroethane (EDC)	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2-Dibromoethane (EDB)	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Naphthalene	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1-Methylnaphthalene	ND	4.0	PP	µg/L	1	12/1/2012 3:38:03 AM
2-Methylnaphthalene	ND	4.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Acetone	ND	10	PP	µg/L	1	12/1/2012 3:38:03 AM
Bromobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Bromodichloromethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Bromoform	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Bromomethane	ND	3.0	PP	µg/L	1	12/1/2012 3:38:03 AM
2-Butanone	ND	10	PP	µg/L	1	12/1/2012 3:38:03 AM
Carbon disulfide	ND	10	PP	µg/L	1	12/1/2012 3:38:03 AM
Carbon Tetrachloride	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Chlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Chloroethane	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Chloroform	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Chloromethane	ND	3.0	PP	µg/L	1	12/1/2012 3:38:03 AM
2-Chlorotoluene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
4-Chlorotoluene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
cis-1,2-DCE	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
cis-1,3-Dichloropropene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2-Dibromo-3-chloropropane	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Dibromochloromethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Dibromomethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2-Dichlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-1
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 7:25:00 AM
Lab ID: 1211A34-001
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,4-Dichlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Dichlorodifluoromethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1-Dichloroethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1-Dichloroethene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2-Dichloropropane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,3-Dichloropropane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
2,2-Dichloropropane	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1-Dichloropropene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Hexachlorobutadiene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
2-Hexanone	ND	10	PP	µg/L	1	12/1/2012 3:38:03 AM
Isopropylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
4-Isopropyltoluene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
4-Methyl-2-pentanone	ND	10	PP	µg/L	1	12/1/2012 3:38:03 AM
Methylene Chloride	ND	3.0	PP	µg/L	1	12/1/2012 3:38:03 AM
n-Butylbenzene	ND	3.0	PP	µg/L	1	12/1/2012 3:38:03 AM
n-Propylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
sec-Butylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Styrene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
tert-Butylbenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1,1,2-Tetrachloroethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1,2,2-Tetrachloroethane	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Tetrachloroethene (PCE)	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
trans-1,2-DCE	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
trans-1,3-Dichloropropene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2,3-Trichlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2,4-Trichlorobenzene	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1,1-Trichloroethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,1,2-Trichloroethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Trichloroethene (TCE)	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Trichlorofluoromethane	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
1,2,3-Trichloropropane	ND	2.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Vinyl chloride	ND	1.0	PP	µg/L	1	12/1/2012 3:38:03 AM
Xylenes, Total	ND	1.5	PP	µg/L	1	12/1/2012 3:38:03 AM
Surr: 1,2-Dichloroethane-d4	90.1	70-130	PP	%REC	1	12/1/2012 3:38:03 AM
Surr: 4-Bromofluorobenzene	88.3	70-130	PP	%REC	1	12/1/2012 3:38:03 AM
Surr: Dibromofluoromethane	87.8	70-130	PP	%REC	1	12/1/2012 3:38:03 AM
Surr: Toluene-d8	97.1	70-130	PP	%REC	1	12/1/2012 3:38:03 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 9:12:00 AM
Lab ID: 1211A34-002 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2012 10:52:53 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 10:52:53 AM
Surr: DNOP	118	79.5-166		%REC	1	11/30/2012 10:52:53 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.13	0.050	P	mg/L	1	12/4/2012 12:34:04 AM
Surr: BFB	100	51.9-148	P	%REC	1	12/4/2012 12:34:04 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.50		mg/L	5	11/29/2012 7:02:43 PM
Chloride	2100	100		mg/L	200	12/1/2012 1:02:38 AM
Bromide	11	0.50		mg/L	5	11/29/2012 7:02:43 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	11/29/2012 7:02:43 PM
Sulfate	240	2.5		mg/L	5	11/29/2012 7:02:43 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	12/6/2012 10:01:59 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.11	0.010		mg/L	5	12/11/2012 9:00:31 PM
Cadmium	ND	0.010		mg/L	5	12/11/2012 9:00:31 PM
Calcium	310	5.0		mg/L	5	12/11/2012 9:00:31 PM
Chromium	ND	0.030		mg/L	5	12/11/2012 9:00:31 PM
Copper	ND	0.030		mg/L	5	12/11/2012 9:00:31 PM
Iron	ND	0.10		mg/L	5	12/11/2012 9:00:31 PM
Lead	ND	0.025	*	mg/L	5	12/11/2012 9:00:31 PM
Magnesium	54	5.0		mg/L	5	12/11/2012 9:00:31 PM
Manganese	0.13	0.010	*	mg/L	5	12/11/2012 9:00:31 PM
Potassium	ND	5.0		mg/L	5	12/11/2012 9:00:31 PM
Silver	ND	0.025		mg/L	5	12/11/2012 9:00:31 PM
Sodium	1200	20		mg/L	20	12/12/2012 5:30:41 PM
Zinc	ND	0.050		mg/L	5	12/11/2012 9:00:31 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.11	0.0020		mg/L	1	12/10/2012 10:08:20 PM
Cadmium	ND	0.0020		mg/L	1	12/10/2012 10:08:20 PM
Chromium	ND	0.0060		mg/L	1	12/10/2012 10:08:20 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 5:41:24 PM
Iron	ND	0.020		mg/L	1	12/10/2012 10:08:20 PM
Lead	ND	0.0050		mg/L	1	12/10/2012 10:08:20 PM
Manganese	0.13	0.0020	*	mg/L	1	12/10/2012 10:08:20 PM
Silver	ND	0.0050		mg/L	1	12/10/2012 10:08:20 PM
Zinc	ND	0.010		mg/L	1	12/11/2012 5:41:24 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0017	0.0010		mg/L	1	12/3/2012 4:26:17 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 9:12:00 AM
Lab ID: 1211A34-002
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Selenium	0.015	0.0010		mg/L	1	12/3/2012 4:26:17 PM
Uranium	0.078	0.010	*	mg/L	10	12/20/2012 11:24:24 AM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	ND	0.0025		mg/L	2.5	12/10/2012 3:49:02 PM
Selenium	0.013	0.0025		mg/L	2.5	12/10/2012 3:49:02 PM
Uranium	0.087	0.0025	*	mg/L	2.5	12/10/2012 3:49:02 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:39:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Toluene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Ethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Methyl tert-butyl ether (MTBE)	230	10		µg/L	10	12/3/2012 4:41:09 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2-Dichloroethane (EDC)	1.1	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Naphthalene	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 4:05:58 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 4:05:58 AM
Acetone	ND	10		µg/L	1	12/1/2012 4:05:58 AM
Bromobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Bromoform	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Bromomethane	ND	3.0		µg/L	1	12/1/2012 4:05:58 AM
2-Butanone	ND	10		µg/L	1	12/1/2012 4:05:58 AM
Carbon disulfide	ND	10		µg/L	1	12/1/2012 4:05:58 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Chlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Chloroethane	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
Chloroform	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Chloromethane	ND	3.0		µg/L	1	12/1/2012 4:05:58 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Dibromomethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: OW-10
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 9:12:00 AM
Lab ID: 1211A34-002 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1-Dichloroethane	1.6	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1-Dichloroethene	2.1	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
2-Hexanone	ND	10		µg/L	1	12/1/2012 4:05:58 AM
Isopropylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/1/2012 4:05:58 AM
Methylene Chloride	ND	3.0		µg/L	1	12/1/2012 4:05:58 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/1/2012 4:05:58 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Styrene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/1/2012 4:05:58 AM
Vinyl chloride	ND	1.0		µg/L	1	12/1/2012 4:05:58 AM
Xylenes, Total	ND	1.5		µg/L	1	12/1/2012 4:05:58 AM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	12/1/2012 4:05:58 AM
Surr: 4-Bromofluorobenzene	90.6	70-130		%REC	1	12/1/2012 4:05:58 AM
Surr: Dibromofluoromethane	89.6	70-130		%REC	1	12/1/2012 4:05:58 AM
Surr: Toluene-d8	96.8	70-130		%REC	1	12/1/2012 4:05:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 3:20:00 PM
Lab ID: 1211A34-003
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Toluene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Ethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Naphthalene	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 4:33:57 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 4:33:57 AM
Acetone	ND	10		µg/L	1	12/1/2012 4:33:57 AM
Bromobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Bromoform	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Bromomethane	ND	3.0		µg/L	1	12/1/2012 4:33:57 AM
2-Butanone	ND	10		µg/L	1	12/1/2012 4:33:57 AM
Carbon disulfide	ND	10		µg/L	1	12/1/2012 4:33:57 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Chlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Chloroethane	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
Chloroform	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Chloromethane	ND	3.0		µg/L	1	12/1/2012 4:33:57 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Dibromomethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
2-Hexanone	ND	10		µg/L	1	12/1/2012 4:33:57 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/27/2012 3:20:00 PM
Lab ID: 1211A34-003 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/1/2012 4:33:57 AM
Methylene Chloride	ND	3.0		µg/L	1	12/1/2012 4:33:57 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/1/2012 4:33:57 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Styrene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/1/2012 4:33:57 AM
Vinyl chloride	ND	1.0		µg/L	1	12/1/2012 4:33:57 AM
Xylenes, Total	ND	1.5		µg/L	1	12/1/2012 4:33:57 AM
Surr: 1,2-Dichloroethane-d4	88.0	70-130		%REC	1	12/1/2012 4:33:57 AM
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	1	12/1/2012 4:33:57 AM
Surr: Dibromofluoromethane	86.9	70-130		%REC	1	12/1/2012 4:33:57 AM
Surr: Toluene-d8	95.5	70-130		%REC	1	12/1/2012 4:33:57 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212203-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.55	0.0060	0.5000	0.02380	105	70	130			

Sample ID **1212203-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.54	0.0060	0.5000	0.02380	103	70	130	1.63	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215488** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Lead	0.50	0.0050	0.5000	0	101	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	103	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.48	0.0060	0.5000	0	96.0	85	115			
Sodium	49	1.0	50.00	0	97.2	85	115			

Sample ID **1211B17-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.46	0.0060	0.5000	0	93.0	70	130			

Sample ID **1211B17-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.46	0.0060	0.5000	0	91.0	70	130	2.11	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212657** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-5060**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212658** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.52	0.0050	0.5000	0	105	85	115			
Manganese	0.49	0.0020	0.5000	0	99.0	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A24-002EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211011** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0006985	105	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **1211A26-004EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.032	0.0010	0.02500	0.004560	109	70	130			
Selenium	0.035	0.0010	0.02500	0.008707	106	70	130			

Sample ID **1211A87-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002556	104	70	130			
Selenium	0.031	0.0010	0.02500	0.003913	110	70	130			

Sample ID **1211721-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.0009008	107	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	108	85	115			
Selenium	0.029	0.0010	0.02500	0	114	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211063** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1211A87-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216453** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.14	0.0050	0.1250	0.008373	105	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216494** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	.00001026	99.2	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216496** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221764** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221765** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221766** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0025	0.05000	0	110	85	115			
Selenium	0.057	0.0025	0.05000	0	113	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.052	0.0025	0.05000	0	105	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5067**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210569** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-5067**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210570** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1211A26-001FMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1211A26-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125	0.311	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208928** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208929** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.8	90	110			
Chloride	4.6	0.50	5.000	0	92.7	90	110			
Bromide	2.3	0.10	2.500	0	92.4	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			
Sulfate	9.2	0.50	10.00	0	91.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.9	90	110			

Sample ID **1211A42-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208931** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3889	96.2	76.6	110			
Bromide	2.4	0.10	2.500	0.1781	88.8	83.3	107			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	74.5	115			
Nitrate+Nitrite as N	4.7	0.20	3.500	1.134	103	88.6	110			

Sample ID **1211A42-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208932** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.88	0.10	0.5000	0.3889	98.6	76.6	110	1.37	20	
Bromide	2.4	0.10	2.500	0.1781	89.6	83.3	107	0.868	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	74.5	115	1.35	20	
Nitrate+Nitrite as N	4.7	0.20	3.500	1.134	101	88.6	110	1.13	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A38-003AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208935** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	76.6	110			
Bromide	3.0	0.10	2.500	0.4699	99.7	83.3	107			
Sulfate	29	0.50	10.00	18.74	103	84.6	122			

Sample ID **1211A38-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208936** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	76.6	110	2.14	20	
Bromide	3.0	0.10	2.500	0.4699	101	83.3	107	1.36	20	
Sulfate	29	0.50	10.00	18.74	104	84.6	122	0.119	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]e	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.6	90	110			

Sample ID **1211A44-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	11	0.50	5.000	5.774	104	87.8	111			

Sample ID **1211A44-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	11	0.50	5.000	5.774	108	87.8	111	1.83	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A36-001AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R7236** RunNo: **7236**
Prep Date: Analysis Date: **11/30/2012** SeqNo: **209912** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	13	0.50	5.000	7.384	107	87.8	111			

Sample ID **1211A36-001AMSD** SampType: **MSD** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R7236** RunNo: **7236**
Prep Date: Analysis Date: **11/30/2012** SeqNo: **209913** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	13	0.50	5.000	7.384	108	87.8	111	0.273	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R7236** RunNo: **7236**
Prep Date: Analysis Date: **11/30/2012** SeqNo: **209965** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R7236** RunNo: **7236**
Prep Date: Analysis Date: **11/30/2012** SeqNo: **209966** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.2	90	110			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW** Batch ID: **R7344** RunNo: **7344**
Prep Date: Analysis Date: **12/6/2012** SeqNo: **213037** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW** Batch ID: **R7344** RunNo: **7344**
Prep Date: Analysis Date: **12/6/2012** SeqNo: **213038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.3	90	110			

Sample ID **1212246-002AMS** SampType: **MS** TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC** Batch ID: **R7344** RunNo: **7344**
Prep Date: Analysis Date: **12/6/2012** SeqNo: **213040** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.4	88.6	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212246-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R7344**	RunNo: **7344**							
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213041**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.9	88.6	110	0.497	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R7344**	RunNo: **7344**							
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **213090**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R7344**	RunNo: **7344**							
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **213091**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID **1212313-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R7344**	RunNo: **7344**							
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **213096**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	8.4	0.20	3.500	4.777	104	88.6	110			

Sample ID **1212313-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R7344**	RunNo: **7344**							
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **213097**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	8.3	0.20	3.500	4.777	102	88.6	110	0.764	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5037**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208984** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		115	79.5	166			

Sample ID **LCS-5037**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	113	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-5037**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	74	157	0.957	23	
Surr: DNOP	0.50		0.5000		101	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		91.7	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	111	75.9	119			
Surr: BFB	19		20.00		95.6	51.9	148			

Sample ID **1211A45-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	6.5	0.50	5.000	1.052	108	63.5	131			
Surr: BFB	200		200.0		99.2	51.9	148			

Sample ID **1211A45-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210679** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	6.2	0.50	5.000	1.052	103	63.5	131	3.92	16.7	
Surr: BFB	200		200.0		101	51.9	148	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**	
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Toluene	20	1.0	20.00	0	99.0	80	120			
Chlorobenzene	19	1.0	20.00	0	97.1	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	82.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		89.2	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **1211a24-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209606** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.5	66.8	128			
Toluene	19	1.0	20.00	0	96.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.8		10.00		88.4	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **1211a24-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209607** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	66.8	128	5.53	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	4.93	18.7	
Chlorobenzene	18	1.0	20.00	0	90.6	70	130	5.11	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	93.2	70	130	7.85	16.7	
Trichloroethene (TCE)	15	1.0	20.00	0	76.2	70	130	8.31	17.5	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.0	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		90.7	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
[illegible]nform	ND	1.0								
[illegible]omethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.8	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.7	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209614** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	19	1.0	20.00	0	96.1	80	120			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.9	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.7	70	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211a41-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **12/1/2012** SeqNo: **209651** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128			
Toluene	20	1.0	20.00	0	97.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.6	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **1211a41-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **12/1/2012** SeqNo: **209652** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128	0.638	16.7	
Toluene	19	1.0	20.00	0	95.2	70	130	2.84	18.7	
Chlorobenzene	19	1.0	20.00	0	94.0	70	130	3.07	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	98.2	70	130	4.95	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	82.1	70	130	4.81	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.2		10.00		91.5	70	130	0	0	
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.7	70	130	0	0	

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R7239** RunNo: **7239**

Prep Date: Analysis Date: **12/3/2012** SeqNo: **210057** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.8	70	130			
Surr: Dibromofluoromethane	9.4		10.00		94.3	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R7239** RunNo: **7239**

Prep Date: Analysis Date: **12/3/2012** SeqNo: **210059** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210059** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.7	70	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210275** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.5	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.2	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	9.4		10.00		93.8	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210277** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.8	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.2	70	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID **1212023-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/4/2012**	SeqNo: **210298** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	230		200.0		116	70	130			
Surr: 4-Bromofluorobenzene	200		200.0		100	70	130			
Surr: Dibromofluoromethane	190		200.0		95.9	70	130			
Surr: Toluene-d8	190		200.0		93.7	70	130			

Sample ID **1212023-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/4/2012**	SeqNo: **210306** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	230		200.0		117	70	130	0	0	
Surr: 4-Bromofluorobenzene	210		200.0		105	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A34**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212023-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7239**	RunNo: **7239**
Prep Date:	Analysis Date: **12/4/2012**	SeqNo: **210306** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	190		200.0		93.9	70	130	0	0	
Surr: Toluene-d8	180		200.0		91.2	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1211A34

Received by/date: AT 11/29/12

Logged By: Anne Thorne 11/29/2012 7:35:00 AM Anne Thorne

Completed By: Anne Thorne 11/29/2012 Anne Thorne

Reviewed By: 11/29/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: Le (<2 or >12 unless noted)
Adjusted? NO
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 4th QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: JB+CM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211A34	Analysis Request: 8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)			Air Bubbles (Y or N)
11-27-12	0725	W	OW-1	4-PLASTIC 6-VOA	1-H2SO4 2-HNO3 6-HCl 3-NONE	-001	X	X	X	X	
11/27/12	0912	W	OW-10	4-PLASTIC 6-VOA	1-H2SO4 2-HNO3 6-HCl 3-NONE	-002	X	X	X	X	
11/27/12	1520	W	FIELD BLANK	3 VOA	HCL	-003	X				
~~11/27/12~~	—	W	~~TRIP BLANK~~	3 VOA	HCL		~~X~~				
			~~11/29/12~~	~~3-VOA~~	~~HCL~~		~~X~~				

Date	Time	Relinquished by:	Received by:	Date	Time
11/29/12	0735			11/29/12	0735
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 26, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling OrderNo.: 1211A45

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/29/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211A45**
Date Reported: **12/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 7:25:00 AM
Lab ID: 1211A45-001 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	1.6	1.0		mg/L	1	11/30/2012 4:22:59 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 4:22:59 PM
Surr: DNOP	117	79.5-166		%REC	1	11/30/2012 4:22:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.1	0.50		mg/L	10	12/3/2012 7:01:13 PM
Surr: BFB	98.9	51.9-148		%REC	10	12/3/2012 7:01:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	3.2	0.50		mg/L	5	11/29/2012 8:04:45 PM
Chloride	1000	50		mg/L	100	12/1/2012 1:39:51 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/29/2012 8:04:45 PM
Bromide	7.2	0.50		mg/L	5	11/29/2012 8:04:45 PM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/29/2012 8:04:45 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/29/2012 8:04:45 PM
Sulfate	150	2.5		mg/L	5	11/29/2012 8:04:45 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.83	0.0020		mg/L	1	12/11/2012 9:04:18 PM
Cadmium	ND	0.0020		mg/L	1	12/11/2012 9:04:18 PM
Calcium	280	5.0		mg/L	5	12/11/2012 9:09:06 PM
Chromium	ND	0.0060		mg/L	1	12/11/2012 9:04:18 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 9:04:18 PM
Iron	8.7	0.20	*	mg/L	10	12/12/2012 5:35:54 PM
Magnesium	71	1.0		mg/L	1	12/11/2012 9:04:18 PM
Manganese	2.9	0.010	*	mg/L	5	12/11/2012 9:09:06 PM
Potassium	2.6	1.0		mg/L	1	12/11/2012 9:04:18 PM
Silver	ND	0.0050		mg/L	1	12/11/2012 9:04:18 PM
Sodium	1000	20		mg/L	20	12/12/2012 5:39:41 PM
Zinc	0.11	0.010		mg/L	1	12/11/2012 9:04:18 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.73	0.0020		mg/L	1	12/10/2012 10:16:11 PM
Cadmium	ND	0.0020		mg/L	1	12/10/2012 10:16:11 PM
Chromium	ND	0.0060		mg/L	1	12/10/2012 10:16:11 PM
Copper	0.021	0.0060		mg/L	1	12/11/2012 5:45:13 PM
Iron	10	0.40	*	mg/L	20	12/11/2012 5:52:13 PM
Lead	0.012	0.0050		mg/L	1	12/10/2012 10:16:11 PM
Manganese	2.7	0.010	*	mg/L	5	12/10/2012 10:19:30 PM
Silver	ND	0.0050		mg/L	1	12/10/2012 10:16:11 PM
Zinc	0.021	0.010		mg/L	1	12/11/2012 5:45:13 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.084	0.0050	*	mg/L	5	12/11/2012 3:51:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A45-001 **Matrix:** AQUEOUS

Client Sample ID: GWM-1
Collection Date: 11/28/2012 7:25:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Lead	0.0037	0.0010		mg/L	1	12/11/2012 3:24:23 PM
Selenium	0.0055	0.0010		mg/L	1	12/3/2012 4:30:13 PM
Uranium	0.019	0.0010		mg/L	1	12/11/2012 3:24:23 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.092	0.0025	*	mg/L	2.5	12/10/2012 3:50:54 PM
Selenium	0.0049	0.0025		mg/L	2.5	12/10/2012 3:50:54 PM
Uranium	0.016	0.0025		mg/L	2.5	12/10/2012 3:50:54 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:56:50 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Toluene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Ethylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Methyl tert-butyl ether (MTBE)	52	10		µg/L	10	12/1/2012 8:16:45 AM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Naphthalene	ND	20		µg/L	10	12/1/2012 8:16:45 AM
1-Methylnaphthalene	ND	40		µg/L	10	12/1/2012 8:16:45 AM
2-Methylnaphthalene	ND	40		µg/L	10	12/1/2012 8:16:45 AM
Acetone	ND	100		µg/L	10	12/1/2012 8:16:45 AM
Bromobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Bromodichloromethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Bromoform	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Bromomethane	ND	30		µg/L	10	12/1/2012 8:16:45 AM
2-Butanone	ND	100		µg/L	10	12/1/2012 8:16:45 AM
Carbon disulfide	ND	100		µg/L	10	12/1/2012 8:16:45 AM
Carbon Tetrachloride	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Chlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Chloroethane	ND	20		µg/L	10	12/1/2012 8:16:45 AM
Chloroform	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Chloromethane	ND	30		µg/L	10	12/1/2012 8:16:45 AM
2-Chlorotoluene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
4-Chlorotoluene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
cis-1,2-DCE	ND	10		µg/L	10	12/1/2012 8:16:45 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	12/1/2012 8:16:45 AM
Dibromochloromethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Dibromomethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-1
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 7:25:00 AM
Lab ID: 1211A45-001 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Dichlorodifluoromethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1-Dichloroethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1-Dichloroethene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2-Dichloropropane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,3-Dichloropropane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
2,2-Dichloropropane	ND	20		µg/L	10	12/1/2012 8:16:45 AM
1,1-Dichloropropene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Hexachlorobutadiene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
2-Hexanone	ND	100		µg/L	10	12/1/2012 8:16:45 AM
Isopropylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
4-Isopropyltoluene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
4-Methyl-2-pentanone	ND	100		µg/L	10	12/1/2012 8:16:45 AM
Methylene Chloride	ND	30		µg/L	10	12/1/2012 8:16:45 AM
n-Butylbenzene	ND	30		µg/L	10	12/1/2012 8:16:45 AM
n-Propylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
sec-Butylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Styrene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
tert-Butylbenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	12/1/2012 8:16:45 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	12/1/2012 8:16:45 AM
trans-1,2-DCE	ND	10		µg/L	10	12/1/2012 8:16:45 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Trichloroethene (TCE)	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Trichlorofluoromethane	ND	10		µg/L	10	12/1/2012 8:16:45 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	12/1/2012 8:16:45 AM
Vinyl chloride	ND	10		µg/L	10	12/1/2012 8:16:45 AM
Xylenes, Total	ND	15		µg/L	10	12/1/2012 8:16:45 AM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	10	12/1/2012 8:16:45 AM
Surr: 4-Bromofluorobenzene	86.2	70-130		%REC	10	12/1/2012 8:16:45 AM
Surr: Dibromofluoromethane	89.3	70-130		%REC	10	12/1/2012 8:16:45 AM
Surr: Toluene-d8	97.0	70-130		%REC	10	12/1/2012 8:16:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A45-002 **Matrix:** AQUEOUS

Client Sample ID: GWM-2
Collection Date: 11/28/2012 7:23:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2012 4:54:29 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 4:54:29 PM
Surr: DNOP	113	79.5-166		%REC	1	11/30/2012 4:54:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/5/2012 4:19:33 PM
Surr: BFB	99.5	51.9-148		%REC	1	12/5/2012 4:19:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/5/2012 4:19:33 PM
Benzene	ND	1.0		µg/L	1	12/5/2012 4:19:33 PM
Toluene	ND	1.0		µg/L	1	12/5/2012 4:19:33 PM
Ethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:19:33 PM
Xylenes, Total	ND	2.0		µg/L	1	12/5/2012 4:19:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:19:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:19:33 PM
Surr: 4-Bromofluorobenzene	91.3	69.7-152		%REC	1	12/5/2012 4:19:33 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	3.8	0.50		mg/L	5	11/29/2012 8:41:59 PM
Chloride	1000	50		mg/L	100	12/1/2012 2:04:39 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/29/2012 8:41:59 PM
Bromide	7.5	0.50		mg/L	5	11/29/2012 8:41:59 PM
Nitrogen, Nitrate (As N)	15	0.50	*	mg/L	5	11/29/2012 8:41:59 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/29/2012 8:41:59 PM
Sulfate	1500	25		mg/L	50	12/3/2012 11:40:56 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Calcium	370	10		mg/L	10	12/11/2012 9:16:37 PM
Magnesium	81	1.0		mg/L	1	12/11/2012 9:12:45 PM
Potassium	2.9	1.0		mg/L	1	12/11/2012 9:12:45 PM
Sodium	1300	20		mg/L	20	12/12/2012 5:57:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211A45**
Date Reported: **12/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: GWM-3
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 6:50:00 AM
Lab ID: 1211A45-003 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/30/2012 5:26:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 5:26:12 PM
Surr: DNOP	115	79.5-166		%REC	1	11/30/2012 5:26:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.088	0.050		mg/L	1	12/5/2012 4:49:54 PM
Surr: BFB	103	51.9-148		%REC	1	12/5/2012 4:49:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/5/2012 4:49:54 PM
Benzene	ND	1.0		µg/L	1	12/5/2012 4:49:54 PM
Toluene	ND	1.0		µg/L	1	12/5/2012 4:49:54 PM
Ethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:49:54 PM
Xylenes, Total	ND	2.0		µg/L	1	12/5/2012 4:49:54 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:49:54 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/5/2012 4:49:54 PM
Surr: 4-Bromofluorobenzene	93.5	69.7-152		%REC	1	12/5/2012 4:49:54 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	5.6	0.50	*	mg/L	5	11/29/2012 9:56:27 PM
Chloride	1200	50		mg/L	100	12/1/2012 2:29:30 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/29/2012 9:56:27 PM
Bromide	7.8	0.50		mg/L	5	11/29/2012 9:56:27 PM
Nitrogen, Nitrate (As N)	8.8	0.50		mg/L	5	11/29/2012 9:56:27 PM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/29/2012 9:56:27 PM
Sulfate	1500	25		mg/L	50	12/4/2012 12:18:10 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Calcium	340	10		mg/L	10	12/11/2012 9:24:12 PM
Magnesium	70	1.0		mg/L	1	12/11/2012 9:20:22 PM
Potassium	4.3	1.0		mg/L	1	12/11/2012 9:20:22 PM
Sodium	1200	20		mg/L	20	12/12/2012 6:00:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A45-004 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 11/28/2012 10:10:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Toluene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Ethylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Naphthalene	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 8:45:00 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 8:45:00 AM
Acetone	ND	10		µg/L	1	12/1/2012 8:45:00 AM
Bromobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Bromoform	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Bromomethane	ND	3.0		µg/L	1	12/1/2012 8:45:00 AM
2-Butanone	ND	10		µg/L	1	12/1/2012 8:45:00 AM
Carbon disulfide	ND	10		µg/L	1	12/1/2012 8:45:00 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Chlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Chloroethane	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
Chloroform	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Chloromethane	ND	3.0		µg/L	1	12/1/2012 8:45:00 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Dibromomethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
2-Hexanone	ND	10		µg/L	1	12/1/2012 8:45:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 10:10:00 AM
Lab ID: 1211A45-004 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/1/2012 8:45:00 AM
Methylene Chloride	ND	3.0		µg/L	1	12/1/2012 8:45:00 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/1/2012 8:45:00 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Styrene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/1/2012 8:45:00 AM
Vinyl chloride	ND	1.0		µg/L	1	12/1/2012 8:45:00 AM
Xylenes, Total	ND	1.5		µg/L	1	12/1/2012 8:45:00 AM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	12/1/2012 8:45:00 AM
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	1	12/1/2012 8:45:00 AM
Surr: Dibromofluoromethane	89.3	70-130		%REC	1	12/1/2012 8:45:00 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	12/1/2012 8:45:00 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212203-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.55	0.0060	0.5000	0.02380	105	70	130			

Sample ID **1212203-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.54	0.0060	0.5000	0.02380	103	70	130	1.63	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215488** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0.008800	94.8	85	115			
Sodium	49	1.0	50.00	0	97.2	85	115			

Sample ID **1211B17-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.53	0.020	0.5000	0.05518	94.7	70	130			

Sample ID **1211B17-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0.05518	93.9	70	130	0.765	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212657** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-5060**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212658** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.52	0.0050	0.5000	0	105	85	115			
Manganese	0.49	0.0020	0.5000	0	99.0	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A24-002EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211011** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **1211A26-004EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.035	0.0010	0.02500	0.008707	106	70	130			

Sample ID **1211A87-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.031	0.0010	0.02500	0.003913	110	70	130			

Sample ID **1211721-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.029	0.0010	0.02500	0	114	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211063** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID **1211721-001EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.031	0.0010	0.02500	0.0007278	120	70	130			

Sample ID **1211A24-002EMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215248** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.038	0.0010	0.02500	0.01124	109	70	130			

Sample ID **1211A87-020AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215255** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.18	0.0050	0.1250	0.03769	115	70	130			

Sample ID **1211A87-020AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215256** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.030	0.0010	0.02500	0.0005523	119	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215282** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0	111	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.027	0.0010	0.02500	.00001042	107	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215283** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	110	85	115			
Lead	0.026	0.0010	0.02500	0	106	85	115			
Uranium	0.028	0.0010	0.02500	0	113	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215284** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7429**	RunNo: **7429**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215285** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Uranium	ND	0.0010								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0025	0.05000	0	110	85	115			
Selenium	0.057	0.0025	0.05000	0	113	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.052	0.0025	0.05000	0	105	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5067**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210569** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-5067**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210570** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1211A26-001FMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1211A26-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125	0.311	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208928** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208929** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.8	90	110			
Nitrogen, Nitrite (As N)	0.91	0.10	1.000	0	91.3	90	110			
Bromide	2.3	0.10	2.500	0	92.4	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	96.4	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.5	90	110			
Sulfate	9.2	0.50	10.00	0	91.8	90	110			

Sample ID **1211A42-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208931** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.87	0.10	0.5000	0.3889	96.2	76.6	110			
Nitrogen, Nitrite (As N)	0.99	0.10	1.000	0	98.6	72.5	111			
Bromide	2.4	0.10	2.500	0.1781	88.8	83.3	107			
Nitrogen, Nitrate (As N)	3.7	0.10	2.500	1.134	104	90.4	113			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	98.4	74.5	115			

Sample ID **1211A42-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208932** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.88	0.10	0.5000	0.3889	98.6	76.6	110	1.37	20	
Nitrogen, Nitrite (As N)	0.92	0.10	1.000	0	92.0	72.5	111	6.92	20	
Bromide	2.4	0.10	2.500	0.1781	89.6	83.3	107	0.868	20	
Nitrogen, Nitrate (As N)	3.8	0.10	2.500	1.134	105	90.4	113	0.346	20	
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.7	74.5	115	1.35	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A38-003AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208935** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	76.6	110			
Bromide	3.0	0.10	2.500	0.4699	99.7	83.3	107			
Sulfate	29	0.50	10.00	18.74	103	84.6	122			

Sample ID **1211A38-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7206**	RunNo: **7206**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208936** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	76.6	110	2.14	20	
Bromide	3.0	0.10	2.500	0.4699	101	83.3	107	1.36	20	
Sulfate	29	0.50	10.00	18.74	104	84.6	122	0.119	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.6	90	110			

Sample ID **1211A44-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	11	0.50	5.000	5.774	104	87.8	111			

Sample ID **1211A44-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7236**	RunNo: **7236**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	11	0.50	5.000	5.774	108	87.8	111	1.83	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1211A45

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID	1211A36-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R7236	RunNo:	7236				
Prep Date:		Analysis Date:	11/30/2012	SeqNo:	209912	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	13	0.50	5.000	7.384	107	87.8	111			

Sample ID	1211A36-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R7236	RunNo:	7236				
Prep Date:		Analysis Date:	11/30/2012	SeqNo:	209913	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	13	0.50	5.000	7.384	108	87.8	111	0.273	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R7236	RunNo:	7236				
Prep Date:		Analysis Date:	11/30/2012	SeqNo:	209965	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW	Batch ID:	R7236	RunNo:	7236				
Prep Date:		Analysis Date:	11/30/2012	SeqNo:	209966	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.2	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R7262	RunNo:	7262				
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	210492	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW	Batch ID:	R7262	RunNo:	7262				
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	210493	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.8	0.50	10.00	0	98.1	90	110			

Sample ID	1212021-001CMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R7262	RunNo:	7262				
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	210495	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	100	2.5	50.00	48.07	104	84.6	122			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID	**1212021-001CMSD**	SampType: **MSD**		TestCode: **EPA Method 300.0: Anions**						
Client ID:	**BatchQC**	Batch ID: **R7262**		RunNo: **7262**						
Prep Date:		Analysis Date: **12/3/2012**		SeqNo: **210496**		Units: **mg/L**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate		99	2.5	50.00	48.07	102	84.6	122	1.28	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5037**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208984** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		115	79.5	166			

Sample ID **LCS-5037**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	113	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-5037**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	74	157	0.957	23	
Surr: DNOP	0.50		0.5000		101	79.5	166	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		91.7	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210676** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	111	75.9	119			
Surr: BFB	19		20.00		95.6	51.9	148			

Sample ID **1211A45-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **GWM-1**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	6.5	0.50	5.000	1.052	108	63.5	131			
Surr: BFB	200		200.0		99.2	51.9	148			

Sample ID **1211A45-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **GWM-1**	Batch ID: **R7242**	RunNo: **7242**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **210679** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	6.2	0.50	5.000	1.052	103	63.5	131	3.92	16.7	
Surr: BFB	200		200.0		101	51.9	148	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7317**	RunNo: **7317**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		93.1	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7317**	RunNo: **7317**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212301** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0	110	75.9	119			
Surr: BFB	19		20.00		96.9	51.9	148			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A45-002AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **GWM-2**	Batch ID: **R7317**			RunNo: **7317**					
Prep Date:	Analysis Date: **12/5/2012**			SeqNo: **212309**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0.03200	81.0	63.5	131			
Surr: BFB	19		20.00		97.0	51.9	148			

Sample ID **1211A45-002AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **GWM-2**	Batch ID: **R7317**			RunNo: **7317**					
Prep Date:	Analysis Date: **12/5/2012**			SeqNo: **212310**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.44	0.050	0.5000	0.03200	81.6	63.5	131	0.684	16.7	
Surr: BFB	20		20.00		99.1	51.9	148	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW** Batch ID: **R7242** RunNo: **7242**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **210685** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	19		20.00		93.2	69.7	152			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW** Batch ID: **R7242** RunNo: **7242**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **210686** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	20		20.00		100	69.7	152			

Sample ID **1211A79-001AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC** Batch ID: **R7242** RunNo: **7242**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **210688** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	100		100.0		103	69.7	152			

Sample ID **1211A79-001AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BatchQC** Batch ID: **R7242** RunNo: **7242**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **210689** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	100		100.0		103	69.7	152	0	0	

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBW** Batch ID: **R7317** RunNo: **7317**
Prep Date: Analysis Date: **12/5/2012** SeqNo: **212324** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Surr: 4-Bromofluorobenzene	19		20.00		95.5	69.7	152			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW** Batch ID: **R7317** RunNo: **7317**
Prep Date: Analysis Date: **12/5/2012** SeqNo: **212325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSW**	Batch ID: **R7317**	RunNo: **7317**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	20	2.5	20.00	0	98.2	66.9	136			
Benzene	21	1.0	20.00	0	105	80	120			
Toluene	21	1.0	20.00	0	106	80	120			
Ethylbenzene	21	1.0	20.00	0	106	80	120			
Xylenes, Total	65	2.0	60.00	0	109	80	120			
1,2,4-Trimethylbenzene	21	1.0	20.00	0	107	74.3	117			
1,3,5-Trimethylbenzene	22	1.0	20.00	0	110	75.8	117			
Surr: 4-Bromofluorobenzene	21		20.00		103	69.7	152			

Sample ID **1211A45-003AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **GWM-3**	Batch ID: **R7317**	RunNo: **7317**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212334** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	16	2.5	20.00	0.1820	81.1	45.1	137			
Benzene	21	1.0	20.00	0.6220	99.7	74.1	124			
Toluene	21	1.0	20.00	0.2380	103	75.2	124			
Ethylbenzene	21	1.0	20.00	0.1680	103	69	125			
Xylenes, Total	64	2.0	60.00	0	107	73.1	126			
1,2,4-Trimethylbenzene	20	1.0	20.00	0.9240	95.7	63.1	121			
1,3,5-Trimethylbenzene	21	1.0	20.00	0.1600	103	60	133			
Surr: 4-Bromofluorobenzene	20		20.00		101	69.7	152			

Sample ID **1211A45-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **GWM-3**	Batch ID: **R7317**	RunNo: **7317**
Prep Date:	Analysis Date: **12/5/2012**	SeqNo: **212335** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	16	2.5	20.00	0.1820	77.5	45.1	137	4.41	13.6	
Benzene	20	1.0	20.00	0.6220	96.4	74.1	124	3.26	11.2	
Toluene	20	1.0	20.00	0.2380	99.1	75.2	124	4.14	11.9	
Ethylbenzene	20	1.0	20.00	0.1680	101	69	125	1.94	13.5	
Xylenes, Total	63	2.0	60.00	0	104	73.1	126	2.39	13	
1,2,4-Trimethylbenzene	18	1.0	20.00	0.9240	87.8	63.1	121	8.23	14.7	
1,3,5-Trimethylbenzene	20	1.0	20.00	0.1600	99.4	60	133	3.74	14	
Surr: 4-Bromofluorobenzene	20		20.00		101	69.7	152	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
-Trichloroethane	ND	1.0								
,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Toluene	20	1.0	20.00	0	99.0	80	120			
Chlorobenzene	19	1.0	20.00	0	97.1	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	82.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.8	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		89.2	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **1211a24-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209606** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.5	66.8	128			
Toluene	19	1.0	20.00	0	96.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.8		10.00		88.4	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **1211a24-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209607** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	66.8	128	5.53	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	4.93	18.7	
Chlorobenzene	18	1.0	20.00	0	90.6	70	130	5.11	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	93.2	70	130	7.85	16.7	
Trichloroethene (TCE)	15	1.0	20.00	0	76.2	70	130	8.31	17.5	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.0	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		90.7	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
[illegible]oform	ND	1.0								
[illegible]romethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.8	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.7	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209614** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	19	1.0	20.00	0	96.1	80	120			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.9	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.7	70	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A45**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211a41-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **12/1/2012**	SeqNo: **209651** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128			
Toluene	20	1.0	20.00	0	97.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.6	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **1211a41-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **12/1/2012**	SeqNo: **209652** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128	0.638	16.7	
Toluene	19	1.0	20.00	0	95.2	70	130	2.84	18.7	
Chlorobenzene	19	1.0	20.00	0	94.0	70	130	3.07	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	98.2	70	130	4.95	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	82.1	70	130	4.81	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.2		10.00		91.5	70	130	0	0	
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.7	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1211A45

Received by/date: AT 11/29/12

Logged By: Anne Thorne 11/29/2012 7:35:00 AM Anne Thorne

Completed By: Anne Thorne 11/29/2012 Anne Thorne

Reviewed By: 11/29/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? ~~Yes~~ ☑ No ☑
10. Was preserved added to bottles? ~~Yes~~ ☑ ~~No~~ ☑ NA ☐
-001E-ADDED 1mL HNO_3 FOR ACCEPTABLE pH - JK 11/29/12 (SEE ADDITIONAL REMARKS)
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? -001A-ONE VOA RECEIVED BROKEN ~~Yes~~ ☑ ~~No~~ ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐ JK 11/29/12
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH:	5 (≤2 or >12 unless noted)
Adjusted?	YES
Checked by:	JK

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date	
By Whom:		Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person	
Regarding:			
Client Instructions:			

18. Additional remarks:
-002D - FILTERED AND PRESERVED (0.4mL HNO_3) IN LAB - POURED FROM -002C (1 OF 2)
-003D - FILTERED AND PRESERVED (0.4mL HNO_3) IN LAB - POURED FROM 003C (1 OF 2) } PER ANNE
JK 11/29/12

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: [illegible]stern Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 4th QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: JBacM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)		Air Bubbles (Y or N)
11/28/12	0725	W	GWM-1	PLASTIC-4 VOA-6	NON 2-NONE 4-HNO3 1-H2SO4 5-HCL	1211445-001	X	X	X	
11/28/12	0723	W	GWM-2	PLASTIC-3 VOA-4	2-H2SO4 1-HNO3 4-NONE 3-HCL	-002	X	X	X	
11/28/12	0650	W	GWM-3	PLASTIC-3 VOA-4	1-H2SO4 1-HNO3 2-NONE 3-HCL	-003	X	X	X	
11/28/12	1010	W	FIELD BLANK	VOA-3	3-HCL	-004	X			
~~11/28/12~~	—	W	~~TRIP BLANK~~ AT 11/29/12	VOA-3	3-HCL	-005	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/29/12	0735			11/29/12	0735
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 26, 2012

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling OrderNo.: 1211B17

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 11/29/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211B17**
Date Reported: **12/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 11:05:00 AM
Lab ID: 1211B17-001 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	19	1.0		mg/L	1	12/3/2012 6:29:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/3/2012 6:29:53 PM
Surr: DNOP	113	79.5-166		%REC	1	12/3/2012 6:29:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	27	5.0		mg/L	100	12/6/2012 3:53:40 PM
Surr: BFB	99.7	51.9-148		%REC	100	12/6/2012 3:53:40 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	12/6/2012 3:53:40 PM
Benzene	1100	100		µg/L	100	12/6/2012 3:53:40 PM
Toluene	890	100		µg/L	100	12/6/2012 3:53:40 PM
Ethylbenzene	510	100		µg/L	100	12/6/2012 3:53:40 PM
Xylenes, Total	6700	200		µg/L	100	12/6/2012 3:53:40 PM
Surr: 4-Bromofluorobenzene	102	69.7-152		%REC	100	12/6/2012 3:53:40 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.51	0.0020		mg/L	1	12/12/2012 6:04:32 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2012 6:04:32 PM
Chromium	0.69	0.030	*	mg/L	5	12/12/2012 6:16:51 PM
Copper	ND	0.0060		mg/L	1	12/12/2012 6:04:32 PM
Iron	0.055	0.020		mg/L	1	12/12/2012 6:04:32 PM
Lead	ND	0.0050		mg/L	1	12/12/2012 6:04:32 PM
Manganese	1.0	0.010	*	mg/L	5	12/12/2012 6:16:51 PM
Silver	ND	0.0050		mg/L	1	12/14/2012 3:18:55 PM
Zinc	0.025	0.010		mg/L	1	12/12/2012 6:04:32 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.53	0.0020		mg/L	1	12/7/2012 12:59:58 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2012 12:59:58 PM
Chromium	0.71	0.0060	*	mg/L	1	12/7/2012 12:59:58 PM
Copper	ND	0.0060		mg/L	1	12/7/2012 12:59:58 PM
Iron	0.23	0.020		mg/L	1	12/7/2012 12:59:58 PM
Lead	ND	0.0050		mg/L	1	12/7/2012 12:59:58 PM
Manganese	1.1	0.010	*	mg/L	5	12/7/2012 1:03:52 PM
Silver	ND	0.0050		mg/L	1	12/7/2012 12:59:58 PM
Zinc	ND	0.010		mg/L	1	12/7/2012 12:59:58 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.010	0.0050	*	mg/L	5	12/3/2012 4:34:09 PM
Selenium	0.015	0.0050		mg/L	5	12/3/2012 4:34:09 PM
Uranium	ND	0.020		mg/L	20	12/17/2012 4:59:30 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0095	0.0025		mg/L	2.5	12/10/2012 4:11:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1211B17**
Date Reported: **12/26/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: East LDU
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 11:05:00 AM
Lab ID: 1211B17-001
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Selenium	0.0036	0.0025		mg/L	2.5	12/10/2012 4:11:30 PM
Uranium	ND	0.0025		mg/L	2.5	12/10/2012 4:11:30 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:42:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Weste LDU
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 11:15:00 AM
Lab ID: 1211B17-002
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	5.7	1.0		mg/L	1	12/3/2012 7:01:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/3/2012 7:01:28 PM
Surr: DNOP	112	79.5-166		%REC	1	12/3/2012 7:01:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	25	5.0		mg/L	100	12/6/2012 4:23:58 PM
Surr: BFB	99.9	51.9-148		%REC	100	12/6/2012 4:23:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	12/6/2012 4:23:58 PM
Benzene	2000	100		µg/L	100	12/6/2012 4:23:58 PM
Toluene	1900	100		µg/L	100	12/6/2012 4:23:58 PM
Ethylbenzene	570	100		µg/L	100	12/6/2012 4:23:58 PM
Xylenes, Total	5100	200		µg/L	100	12/6/2012 4:23:58 PM
Surr: 4-Bromofluorobenzene	102	69.7-152		%REC	100	12/6/2012 4:23:58 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.16	0.0020		mg/L	1	12/12/2012 6:28:16 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2012 6:28:16 PM
Chromium	0.071	0.0060		mg/L	1	12/12/2012 6:28:16 PM
Copper	ND	0.0060		mg/L	1	12/12/2012 6:28:16 PM
Iron	0.38	0.020	*	mg/L	1	12/12/2012 6:28:16 PM
Lead	ND	0.0050		mg/L	1	12/14/2012 3:31:39 PM
Manganese	0.55	0.0020	*	mg/L	1	12/12/2012 6:28:16 PM
Silver	ND	0.0050		mg/L	1	12/14/2012 3:31:39 PM
Zinc	0.040	0.010		mg/L	1	12/12/2012 6:28:16 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.17	0.0020		mg/L	1	12/7/2012 1:07:44 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2012 1:07:44 PM
Chromium	0.079	0.0060		mg/L	1	12/7/2012 1:07:44 PM
Copper	ND	0.0060		mg/L	1	12/7/2012 1:07:44 PM
Iron	0.72	0.020	*	mg/L	1	12/7/2012 1:07:44 PM
Lead	ND	0.0050		mg/L	1	12/7/2012 1:07:44 PM
Manganese	0.57	0.0020	*	mg/L	1	12/7/2012 1:07:44 PM
Silver	ND	0.0050		mg/L	1	12/7/2012 1:07:44 PM
Zinc	0.016	0.010		mg/L	1	12/7/2012 1:07:44 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	ND	0.0050		mg/L	5	12/3/2012 4:38:05 PM
Selenium	0.013	0.0050		mg/L	5	12/3/2012 4:38:05 PM
Uranium	ND	0.050		mg/L	50	12/20/2012 11:26:16 AM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0031	0.0025		mg/L	2.5	12/10/2012 4:13:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Weste LDU
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 11:15:00 AM
Lab ID: 1211B17-002 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Selenium	ND	0.0025		mg/L	2.5	12/10/2012 4:13:22 PM
Uranium	ND	0.0025		mg/L	2.5	12/10/2012 4:13:22 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:44:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Oil Sump LDU
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 10:47:00 AM
Lab ID: 1211B17-003 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	13	1.0		mg/L	1	12/3/2012 7:33:11 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/3/2012 7:33:11 PM
Surr: DNOP	112	79.5-166		%REC	1	12/3/2012 7:33:11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	37	10		mg/L	200	12/6/2012 4:54:13 PM
Surr: BFB	99.5	51.9-148		%REC	200	12/6/2012 4:54:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	500		µg/L	200	12/6/2012 4:54:13 PM
Benzene	2700	200		µg/L	200	12/6/2012 4:54:13 PM
Toluene	6600	200		µg/L	200	12/6/2012 4:54:13 PM
Ethylbenzene	570	200		µg/L	200	12/6/2012 4:54:13 PM
Xylenes, Total	5400	400		µg/L	200	12/6/2012 4:54:13 PM
Surr: 4-Bromofluorobenzene	101	69.7-152		%REC	200	12/6/2012 4:54:13 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.32	0.0020		mg/L	1	12/12/2012 6:48:37 PM
Cadmium	ND	0.0020		mg/L	1	12/12/2012 6:48:37 PM
Chromium	0.080	0.0060		mg/L	1	12/12/2012 6:48:37 PM
Copper	ND	0.0060		mg/L	1	12/12/2012 6:48:37 PM
Iron	0.37	0.020	*	mg/L	1	12/12/2012 6:48:37 PM
Lead	ND	0.0050		mg/L	1	12/14/2012 3:35:38 PM
Manganese	1.1	0.010	*	mg/L	5	12/12/2012 6:52:39 PM
Silver	ND	0.0050		mg/L	1	12/14/2012 3:35:38 PM
Zinc	0.060	0.010		mg/L	1	12/12/2012 6:48:37 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.34	0.0020		mg/L	1	12/7/2012 1:17:17 PM
Cadmium	ND	0.0020		mg/L	1	12/7/2012 1:17:17 PM
Chromium	0.085	0.0060		mg/L	1	12/7/2012 1:17:17 PM
Copper	ND	0.0060		mg/L	1	12/7/2012 1:17:17 PM
Iron	0.80	0.020	*	mg/L	1	12/7/2012 1:17:17 PM
Lead	ND	0.0050		mg/L	1	12/7/2012 1:17:17 PM
Manganese	1.1	0.010	*	mg/L	5	12/7/2012 1:32:25 PM
Silver	ND	0.0050		mg/L	1	12/7/2012 1:17:17 PM
Zinc	0.041	0.010		mg/L	1	12/7/2012 1:17:17 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.014	0.0050	*	mg/L	5	12/3/2012 4:49:54 PM
Selenium	0.013	0.0050		mg/L	5	12/3/2012 4:49:54 PM
Uranium	ND	0.020		mg/L	20	12/17/2012 5:03:14 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.011	0.0025	*	mg/L	2.5	12/11/2012 10:30:31 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211B17-003 **Matrix:** AQUEOUS

Client Sample ID: Oil Sump LDU
Collection Date: 11/28/2012 10:47:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Selenium	0.0046	0.0025		mg/L	2.5	12/11/2012 10:30:31 AM
Uranium	ND	0.0025		mg/L	2.5	12/11/2012 10:30:31 AM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:46:17 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 10:10:00 AM
Lab ID: 1211B17-004
Matrix: AQUEOUS
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/6/2012 5:54:33 PM
Surr: BFB	95.9	51.9-148		%REC	1	12/6/2012 5:54:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/6/2012 5:54:33 PM
Benzene	ND	1.0		µg/L	1	12/6/2012 5:54:33 PM
Toluene	ND	1.0		µg/L	1	12/6/2012 5:54:33 PM
Ethylbenzene	ND	1.0		µg/L	1	12/6/2012 5:54:33 PM
Xylenes, Total	ND	2.0		µg/L	1	12/6/2012 5:54:33 PM
Surr: 4-Bromofluorobenzene	95.7	69.7-152		%REC	1	12/6/2012 5:54:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.3	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
[illegible]per	0.48	0.0060	0.5000	0	96.0	85	115			
[illegible]	0.48	0.020	0.5000	0.008800	94.8	85	115			
Lead	0.49	0.0050	0.5000	0	97.2	85	115			
Manganese	0.47	0.0020	0.5000	0	94.5	85	115			
Zinc	0.48	0.010	0.5000	0	95.9	85	115			

Sample ID **1211B17-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.97	0.0020	0.5000	0.5122	92.3	70	130			
Cadmium	0.47	0.0020	0.5000	0	95.0	70	130			
Copper	0.46	0.0060	0.5000	0	93.0	70	130			
Iron	0.53	0.020	0.5000	0.05518	94.7	70	130			
Lead	0.43	0.0050	0.5000	0	85.9	70	130			
Zinc	0.48	0.010	0.5000	0.02500	90.1	70	130			

Sample ID **1211B17-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.97	0.0020	0.5000	0.5122	91.6	70	130	0.361	20	
Cadmium	0.47	0.0020	0.5000	0	94.0	70	130	1.04	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211B17-001CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU** Batch ID: **R7459** RunNo: **7459**
Prep Date: Analysis Date: **12/12/2012** SeqNo: **216132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.46	0.0060	0.5000	0	91.0	70	130	2.11	20	
Iron	0.52	0.020	0.5000	0.05518	93.9	70	130	0.765	20	
Lead	0.42	0.0050	0.5000	0	85.0	70	130	1.12	20	
Zinc	0.46	0.010	0.5000	0.02500	87.9	70	130	2.37	20	

Sample ID **1211B17-001CMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU** Batch ID: **R7459** RunNo: **7459**
Prep Date: Analysis Date: **12/12/2012** SeqNo: **216134** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.1	0.030	2.500	0.6944	96.4	70	130			
Manganese	3.4	0.010	2.500	1.030	93.6	70	130			

Sample ID **1211B17-001CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU** Batch ID: **R7459** RunNo: **7459**
Prep Date: Analysis Date: **12/12/2012** SeqNo: **216135** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	3.1	0.030	2.500	0.6944	96.5	70	130	0.121	20	
Manganese	3.4	0.010	2.500	1.030	94.0	70	130	0.301	20	

Sample ID **1211B17-001CMS** SampType: **MS** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU** Batch ID: **R7506** RunNo: **7506**
Prep Date: Analysis Date: **12/14/2012** SeqNo: **217908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.054	0.0050	0.1000	0	54.1	70	130			S

Sample ID **1211B17-001CMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **East LDU** Batch ID: **R7506** RunNo: **7506**
Prep Date: Analysis Date: **12/14/2012** SeqNo: **217909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.058	0.0050	0.1000	0	58.1	70	130	7.08	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5083**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **5083**	RunNo: **7365**
Prep Date: **12/4/2012**	Analysis Date: **12/7/2012**	SeqNo: **213593** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-5083**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **5083**	RunNo: **7365**
Prep Date: **12/4/2012**	Analysis Date: **12/7/2012**	SeqNo: **213594** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.3	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.1	85	115			
[illegible]mium	0.48	0.0060	0.5000	0.001110	96.0	85	115			
[illegible]er	0.48	0.0060	0.5000	0	95.5	85	115			
Iron	0.52	0.020	0.5000	0	104	85	115			
Lead	0.49	0.0050	0.5000	0	97.5	85	115			
Manganese	0.47	0.0020	0.5000	0	93.9	85	115			
Silver	0.11	0.0050	0.1000	0.001200	107	85	115			
Zinc	0.48	0.010	0.5000	0	96.8	85	115			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- [illegible] Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A24-002EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211011** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0006985	105	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **1211A26-004EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211020** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.032	0.0010	0.02500	0.004560	109	70	130			
Selenium	0.035	0.0010	0.02500	0.008707	106	70	130			

Sample ID **1211A87-002AMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211027** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002556	104	70	130			
Selenium	0.031	0.0010	0.02500	0.003913	110	70	130			

Sample ID **1211721-001EMS** SampType: **MS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.0009008	107	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	108	85	115			
Selenium	0.029	0.0010	0.02500	0	114	85	115			

Sample ID **LCS** SampType: **LCS** TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW** Batch ID: **R7276** RunNo: **7276**
Prep Date: Analysis Date: **12/3/2012** SeqNo: **211060** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211063** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1212092-004AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.028	0.0010	0.02500	0.001620	106	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218897** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218898** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218899** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218900** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7543**	RunNo: **7543**
Prep Date:	Analysis Date: **12/17/2012**	SeqNo: **218902** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221764** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221765** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221766** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221767** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LLLCS-5083**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5083**	RunNo: **7315**
Prep Date: **12/4/2012**	Analysis Date: **12/5/2012**	SeqNo: **212143** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.054	0.0025	0.05000	0	108	85	115			
Selenium	0.056	0.0025	0.05000	0	113	85	115			

Sample ID **MB-5083**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5083**	RunNo: **7315**
Prep Date: **12/4/2012**	Analysis Date: **12/5/2012**	SeqNo: **212148** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **LLLCS-5083**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5083**	RunNo: **7405**
Prep Date: **12/4/2012**	Analysis Date: **12/10/2012**	SeqNo: **214534** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.052	0.0025	0.05000	0	104	85	115			

nple ID **MB-5083**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5083**	RunNo: **7405**
Prep Date: **12/4/2012**	Analysis Date: **12/10/2012**	SeqNo: **214541** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5067**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210569** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-5067**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210570** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1211A26-001FMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210597** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1211A26-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210598** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125	0.311	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LCS-5075**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5075**	RunNo: **7240**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.4	1.0	5.000	0	88.5	74	157			
Surr: DNOP	0.47		0.5000		94.0	79.5	166			

Sample ID **MB-5075**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5075**	RunNo: **7240**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210370** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.0		1.000		103	79.5	166			

Sample ID **LCSD-5075**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5075**	RunNo: **7240**
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210371** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	83.9	74	157	5.34	23	
Surr: DNOP	0.48		0.5000		95.0	79.5	166	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7345**	RunNo: **7345**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213132** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	19		20.00		95.7	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7345**	RunNo: **7345**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213133** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.42	0.050	0.5000	0	83.8	75.9	119			
Surr: BFB	20		20.00		98.8	51.9	148			

Sample ID **1211B17-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **East LDU**	Batch ID: **R7345**	RunNo: **7345**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213138** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	85	5.0	50.00	27.10	116	63.5	131			
Surr: BFB	2000		2000		101	51.9	148			

Sample ID **1211B17-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **East LDU**	Batch ID: **R7345**	RunNo: **7345**
Prep Date:	Analysis Date: **12/6/2012**	SeqNo: **213139** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	82	5.0	50.00	27.10	109	63.5	131	4.15	16.7	
Surr: BFB	2000		2000		102	51.9	148	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211B17**

26-Dec-12

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **PBW** Batch ID: **R7345** RunNo: **7345**

Prep Date: Analysis Date: **12/6/2012** SeqNo: **213146** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	20		20.00		98.4	69.7	152			

Sample ID **100NG BTEX LCS** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **LCSW** Batch ID: **R7345** RunNo: **7345**

Prep Date: Analysis Date: **12/6/2012** SeqNo: **213147** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19	2.5	20.00	0	93.3	66.9	136			
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	20	1.0	20.00	0	102	80	120			
Ethylbenzene	21	1.0	20.00	0	103	80	120			
Xylenes, Total	63	2.0	60.00	0	106	80	120			
Surr: 4-Bromofluorobenzene	20		20.00		102	69.7	152			

Sample ID **1211B17-002AMS** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Weste LDU** Batch ID: **R7345** RunNo: **7345**

Prep Date: Analysis Date: **12/6/2012** SeqNo: **213152** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1900	250	2000	0	96.1	45.1	137			
Benzene	4100	100	2000	1969	109	74.1	124			
Toluene	4100	100	2000	1904	108	75.2	124			
Ethylbenzene	2700	100	2000	565.6	106	69	125			
Xylenes, Total	11000	200	6000	5109	106	73.1	126			
Surr: 4-Bromofluorobenzene	2100		2000		105	69.7	152			

Sample ID **1211B17-002AMSD** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**

Client ID: **Weste LDU** Batch ID: **R7345** RunNo: **7345**

Prep Date: Analysis Date: **12/6/2012** SeqNo: **213153** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1800	250	2000	0	90.3	45.1	137	6.31	13.6	
Benzene	3800	100	2000	1969	89.5	74.1	124	9.78	11.2	
Toluene	3700	100	2000	1904	88.9	75.2	124	9.65	11.9	
Ethylbenzene	2400	100	2000	565.6	93.5	69	125	9.86	13.5	
Xylenes, Total	10000	200	6000	5109	89.8	73.1	126	8.80	13	
Surr: 4-Bromofluorobenzene	2100		2000		104	69.7	152	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1211B17

Received by/date: AT 11/29/12

Logged By: Anne Thorne 11/29/2012 7:35:00 AM Anne Thorne

Completed By: Anne Thorne 11/30/2012 Anne Thorne

Reviewed By: 12/03/12

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☑ 12/3 NA ☐

Added 1mL HNO3 to -001D, 2mL to -003D and 0.4mL to -003C for acceptable pH.

7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted? YES
Checked by: mg

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Client: stern Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other
☐ EDD (Type)

☒ Standard ☐ Rush

Project Name: 4th QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler: JB + CM

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211317	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)		Air Bubbles (Y or N)
11/29/12	1105	W	East LDU	PLASTIC-2 VOA-4	2-HNO3 3-HCL 1-NONE	-001	X	X	X	
11/28/12	1115	W	West LDU	PLASTIC-2 VOA-4	2-HNO3 3-HCL 1-NONE	-002	X	X	X	
11/28/12	1047	W	Oil Sump LDU	PLASTIC-2 VOA-4	2-HNO3 3-HCL 1-NONE	-003	X	X	X	
11/29/12	1010	W	FIELD BLANK	VOA-3	3-HCL	-004	X			
~~11/28/12~~	-	W	~~TRIP BLANK~~	VOA-3	3-HCL		X			
			AD 11/29/12			AT 11/29/12				

Date	Time	Relinquished by:	Received by:	Date	Time
11/29/12	0735				
Date:	Time:	Relinquished by:	Received by:	11/29/12	0735

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 02, 2013

Cheryl Johnson

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling

OrderNo.: 1211A29

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 2 sample(s) on 11/29/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1211A29**
Date Reported: **1/2/2013**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: AL-2 to EP-1
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 11/28/2012 2:00:00 PM
Lab ID: 1211A29-001 **Matrix:** AQUEOUS **Received Date:** 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	7.8	1.0		mg/L	1	11/30/2012 10:09:19 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/30/2012 10:09:19 AM
Surr: DNOP	123	79.5-166		%REC	1	11/30/2012 10:09:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.25		mg/L	5	11/30/2012 12:57:12 AM
Surr: BFB	107	51.9-148		%REC	5	11/30/2012 12:57:12 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	4.5	0.50	*	mg/L	5	11/30/2012 12:57:46 AM
Chloride	380	10		mg/L	20	11/30/2012 1:10:10 AM
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	11/30/2012 12:57:46 AM
Bromide	ND	0.50		mg/L	5	11/30/2012 12:57:46 AM
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	11/30/2012 12:57:46 AM
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	11/30/2012 12:57:46 AM
Sulfate	740	10		mg/L	20	11/30/2012 1:10:10 AM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **ELS**
Barium	0.025	0.0020		mg/L	1	12/11/2012 8:28:27 PM
Cadmium	ND	0.0020		mg/L	1	12/11/2012 8:28:27 PM
Calcium	220	5.0		mg/L	5	12/11/2012 8:32:14 PM
Chromium	ND	0.0060		mg/L	1	12/11/2012 8:28:27 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 8:28:27 PM
Iron	0.32	0.020	*	mg/L	1	12/11/2012 8:28:27 PM
Lead	ND	0.0050		mg/L	1	12/21/2012 1:35:17 PM
Magnesium	62	1.0		mg/L	1	12/11/2012 8:28:27 PM
Manganese	0.071	0.0020	*	mg/L	1	12/11/2012 8:28:27 PM
Potassium	21	1.0		mg/L	1	12/11/2012 8:28:27 PM
Silver	ND	0.0050		mg/L	1	12/11/2012 8:28:27 PM
Sodium	280	5.0		mg/L	5	12/12/2012 5:23:16 PM
Zinc	0.024	0.010		mg/L	1	12/11/2012 8:28:27 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.024	0.0020		mg/L	1	12/10/2012 9:39:26 PM
Cadmium	ND	0.0020		mg/L	1	12/10/2012 9:39:26 PM
Chromium	ND	0.0060		mg/L	1	12/10/2012 9:39:26 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 5:33:33 PM
Iron	0.37	0.020	*	mg/L	1	12/10/2012 9:39:26 PM
Lead	ND	0.0050		mg/L	1	12/10/2012 9:39:26 PM
Manganese	0.068	0.0020	*	mg/L	1	12/10/2012 9:39:26 PM
Silver	ND	0.0050		mg/L	1	12/10/2012 9:39:26 PM
Zinc	0.023	0.010		mg/L	1	12/11/2012 5:33:33 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A29-001 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 11/28/2012 2:00:00 PM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0044	0.0010		mg/L	1	12/3/2012 4:18:25 PM
Selenium	0.0020	0.0010		mg/L	1	12/3/2012 4:18:25 PM
Uranium	ND	0.0050		mg/L	5	12/12/2012 3:07:27 PM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0045	0.0025		mg/L	2.5	12/10/2012 3:45:17 PM
Selenium	ND	0.0025		mg/L	2.5	12/10/2012 3:45:17 PM
Uranium	ND	0.0025		mg/L	2.5	12/10/2012 3:45:17 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/3/2012 4:35:35 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Toluene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Ethylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Naphthalene	ND	10		µg/L	5	12/1/2012 2:41:52 AM
1-Methylnaphthalene	ND	20		µg/L	5	12/1/2012 2:41:52 AM
2-Methylnaphthalene	ND	20		µg/L	5	12/1/2012 2:41:52 AM
Acetone	75	50		µg/L	5	12/1/2012 2:41:52 AM
Bromobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Bromodichloromethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Bromoform	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Bromomethane	ND	15		µg/L	5	12/1/2012 2:41:52 AM
2-Butanone	ND	50		µg/L	5	12/1/2012 2:41:52 AM
Carbon disulfide	ND	50		µg/L	5	12/1/2012 2:41:52 AM
Carbon Tetrachloride	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Chlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Chloroethane	ND	10		µg/L	5	12/1/2012 2:41:52 AM
Chloroform	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Chloromethane	ND	15		µg/L	5	12/1/2012 2:41:52 AM
2-Chlorotoluene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
4-Chlorotoluene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
cis-1,2-DCE	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	12/1/2012 2:41:52 AM
Dibromochloromethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Dibromomethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A29-001 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 11/28/2012 2:00:00 PM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2-Dichlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Dichlorodifluoromethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1-Dichloroethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1-Dichloroethene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2-Dichloropropane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,3-Dichloropropane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
2,2-Dichloropropane	ND	10		µg/L	5	12/1/2012 2:41:52 AM
1,1-Dichloropropene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Hexachlorobutadiene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
2-Hexanone	ND	50		µg/L	5	12/1/2012 2:41:52 AM
Isopropylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
4-Isopropyltoluene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
4-Methyl-2-pentanone	ND	50		µg/L	5	12/1/2012 2:41:52 AM
Methylene Chloride	ND	15		µg/L	5	12/1/2012 2:41:52 AM
n-Butylbenzene	ND	15		µg/L	5	12/1/2012 2:41:52 AM
n-Propylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
sec-Butylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Styrene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
tert-Butylbenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	12/1/2012 2:41:52 AM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
trans-1,2-DCE	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Trichloroethene (TCE)	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Trichlorofluoromethane	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
1,2,3-Trichloropropane	ND	10		µg/L	5	12/1/2012 2:41:52 AM
Vinyl chloride	ND	5.0		µg/L	5	12/1/2012 2:41:52 AM
Xylenes, Total	ND	7.5		µg/L	5	12/1/2012 2:41:52 AM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	5	12/1/2012 2:41:52 AM
Surr: 4-Bromofluorobenzene	89.3	70-130		%REC	5	12/1/2012 2:41:52 AM
Surr: Dibromofluoromethane	90.8	70-130		%REC	5	12/1/2012 2:41:52 AM
Surr: Toluene-d8	94.7	70-130		%REC	5	12/1/2012 2:41:52 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A29-002 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 11/28/2012 10:10:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Toluene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Ethylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Naphthalene	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 3:10:02 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/1/2012 3:10:02 AM
Acetone	ND	10		µg/L	1	12/1/2012 3:10:02 AM
Bromobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Bromodichloromethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Bromoform	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Bromomethane	ND	3.0		µg/L	1	12/1/2012 3:10:02 AM
2-Butanone	ND	10		µg/L	1	12/1/2012 3:10:02 AM
Carbon disulfide	ND	10		µg/L	1	12/1/2012 3:10:02 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Chlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Chloroethane	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
Chloroform	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Chloromethane	ND	3.0		µg/L	1	12/1/2012 3:10:02 AM
2-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
4-Chlorotoluene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
cis-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
Dibromochloromethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Dibromomethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
2-Hexanone	ND	10		µg/L	1	12/1/2012 3:10:02 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1211A29-002 **Matrix:** AQUEOUS

Client Sample ID: Field Blank
Collection Date: 11/28/2012 10:10:00 AM
Received Date: 11/29/2012 7:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/1/2012 3:10:02 AM
Methylene Chloride	ND	3.0		µg/L	1	12/1/2012 3:10:02 AM
n-Butylbenzene	ND	3.0		µg/L	1	12/1/2012 3:10:02 AM
n-Propylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
sec-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Styrene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
tert-Butylbenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
trans-1,2-DCE	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/1/2012 3:10:02 AM
Vinyl chloride	ND	1.0		µg/L	1	12/1/2012 3:10:02 AM
Xylenes, Total	ND	1.5		µg/L	1	12/1/2012 3:10:02 AM
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	1	12/1/2012 3:10:02 AM
Surr: 4-Bromofluorobenzene	89.1	70-130		%REC	1	12/1/2012 3:10:02 AM
Surr: Dibromofluoromethane	88.3	70-130		%REC	1	12/1/2012 3:10:02 AM
Surr: Toluene-d8	94.5	70-130		%REC	1	12/1/2012 3:10:02 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212203-001CMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.55	0.0060	0.5000	0.02380	105	70	130			

Sample ID **1212203-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.54	0.0060	0.5000	0.02380	103	70	130	1.63	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215488** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
[illegible]m	ND	1.0								
[illegible]nium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7435**	RunNo: **7435**
Prep Date:	Analysis Date: **12/11/2012**	SeqNo: **215489** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

[illegible]iers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216090** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7459**	RunNo: **7459**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216091** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	97.2	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7695**	RunNo: **7695**
Prep Date:	Analysis Date: **12/21/2012**	SeqNo: **223513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7695**	RunNo: **7695**
Prep Date:	Analysis Date: **12/21/2012**	SeqNo: **223514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.51	0.0050	0.5000	0	102	85	115			

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212657** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-5060**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **5060**	RunNo: **7330**
Prep Date: **12/3/2012**	Analysis Date: **12/6/2012**	SeqNo: **212658** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
[illegible]um	0.51	0.0020	0.5000	0	103	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.50	0.0060	0.5000	0	99.2	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Lead	0.52	0.0050	0.5000	0	105	85	115			
Manganese	0.49	0.0020	0.5000	0	99.0	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

[illegible]iers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1211A29**

Hall Environmental Analysis Laboratory, Inc.

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID	1211A24-002EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211011	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.0006985	105	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID	1211A26-004EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211020	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.032	0.0010	0.02500	0.004560	109	70	130			
Selenium	0.035	0.0010	0.02500	0.008707	106	70	130			

Sample ID	1211A87-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211027	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0002556	104	70	130			
Selenium	0.031	0.0010	0.02500	0.003913	110	70	130			

Sample ID	1211721-001EMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211044	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.028	0.0010	0.02500	0.0009008	107	70	130			
Selenium	0.027	0.0010	0.02500	0	109	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211059	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0	108	85	115			
Selenium	0.029	0.0010	0.02500	0	114	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R7276	RunNo:	7276					
Prep Date:		Analysis Date:	12/3/2012	SeqNo:	211060	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ıll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211062** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7276**	RunNo: **7276**
Prep Date:	Analysis Date: **12/3/2012**	SeqNo: **211063** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1211A87-002AMS**	SampType: **MS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216453** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ım	0.14	0.0050	0.1250	0.008373	105	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216494** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	.00001026	99.2	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216496** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216498** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

ïers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7464**	RunNo: **7464**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
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QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.055	0.0025	0.05000	0	110	85	115			
Selenium	0.057	0.0025	0.05000	0	113	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7315**
Prep Date: **12/3/2012**	Analysis Date: **12/5/2012**	SeqNo: **212147** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **LLLCS-5060**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214533** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]m	0.052	0.0025	0.05000	0	105	85	115			

Sample ID **MB-5060**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5060**	RunNo: **7405**
Prep Date: **12/3/2012**	Analysis Date: **12/10/2012**	SeqNo: **214540** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0025								

[illegible]iers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5067**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **PBW**	Batch ID: **5067**	RunNo: **7264**							
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210569**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-5067**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **LCSW**	Batch ID: **5067**	RunNo: **7264**							
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210570**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	102	80	120			

Sample ID **1211A26-001FMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**							
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210597**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125			

Sample ID **1211A26-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**							
Client ID: **BatchQC**	Batch ID: **5067**	RunNo: **7264**							
Prep Date: **12/3/2012**	Analysis Date: **12/3/2012**	SeqNo: **210598**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0054	0.0010	0.005000	0	108	75	125	0.311	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R7205**	RunNo: **7205**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R7205**	RunNo: **7205**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208820** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrite (As N)	0.93	0.10	1.000	0	93.2	90	110			
[illegible]ide	2.4	0.10	2.500	0	96.6	90	110			
[illegible]ogen, Nitrate (As N)	2.5	0.10	2.500	0	99.8	90	110			
Phosphorus, Orthophosphate (As P	5.0	0.50	5.000	0	99.3	90	110			
Sulfate	9.4	0.50	10.00	0	94.3	90	110			

Sample ID **1211A26-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7205**	RunNo: **7205**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208822** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.4	0.50	2.500	1.098	91.6	76.6	110			
Nitrogen, Nitrite (As N)	4.5	0.50	5.000	0	89.5	72.5	111			
Bromide	14	0.50	12.50	1.958	92.5	83.3	107			
Nitrogen, Nitrate (As N)	14	0.50	12.50	1.444	96.7	90.4	113			
Phosphorus, Orthophosphate (As P	24	2.5	25.00	0	95.8	74.5	115			
Sulfate	120	2.5	50.00	69.93	97.5	84.6	122			

Sample ID **1211A26-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7205**	RunNo: **7205**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208823** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	3.4	0.50	2.500	1.098	93.7	76.6	110	1.48	20	
Nitrogen, Nitrite (As N)	4.4	0.50	5.000	0	88.8	72.5	111	0.774	20	
Bromide	13	0.50	12.50	1.958	92.1	83.3	107	0.319	20	
Nitrogen, Nitrate (As N)	13	0.50	12.50	1.444	96.4	90.4	113	0.237	20	

[illegible]iers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A26-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R7205**	RunNo: **7205**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208823** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P	24	2.5	25.00	0	95.9	74.5	115	0.152	20	
Sulfate	120	2.5	50.00	69.93	99.0	84.6	122	0.610	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5037**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208984** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		115	79.5	166			

Sample ID **LCS-5037**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208985** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	113	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-5037**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5037**	RunNo: **7208**
Prep Date: **11/30/2012**	Analysis Date: **11/30/2012**	SeqNo: **208986** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	74	157	0.957	23	
Surr: DNOP	0.50		0.5000		101	79.5	166	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB-II**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7201**	RunNo: **7201**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208706** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		101	51.9	148			

Sample ID **2.5UG GRO LCS-II**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7201**	RunNo: **7201**
Prep Date:	Analysis Date: **11/29/2012**	SeqNo: **208707** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.4	75.9	119			
Surr: BFB	22		20.00		108	51.9	148			

Sample ID **1211A27-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7201**	RunNo: **7201**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **208711** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.5	0.25	2.500	0	98.8	63.5	131			
Surr: BFB	110		100.0		108	51.9	148			

Sample ID **1211A27-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7201**	RunNo: **7201**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **208712** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	2.3	0.25	2.500	0	92.4	63.5	131	6.78	16.7	
Surr: BFB	110		100.0		105	51.9	148	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**	
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
ıone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

C ers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209545** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.7	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.3	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.1	70	130			
Toluene	20	1.0	20.00	0	99.0	80	120			
Chlorobenzene	19	1.0	20.00	0	97.1	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	82.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209553** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		89.2	70	130			
Surr: Toluene-d8	9.6		10.00		95.5	70	130			

Sample ID **1211a24-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209606** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.5	66.8	128			
Toluene	19	1.0	20.00	0	96.8	70	130			
Chlorobenzene	19	1.0	20.00	0	95.3	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.8		10.00		88.4	70	130			
Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **1211a24-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209607** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.2	66.8	128	5.53	16.7	
Toluene	18	1.0	20.00	0	92.1	70	130	4.93	18.7	
Chlorobenzene	18	1.0	20.00	0	90.6	70	130	5.11	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	93.2	70	130	7.85	16.7	
Trichloroethene (TCE)	15	1.0	20.00	0	76.2	70	130	8.31	17.5	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.3		10.00		93.0	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		90.7	70	130	0	0	
Surr: Toluene-d8	9.9		10.00		98.8	70	130	0	0	

Sample ID **b3** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R7228** RunNo: **7228**

Prep Date: Analysis Date: **11/30/2012** SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

ll Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209611** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
T ofluoromethane	ND	1.0								
1, richloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.8	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.7	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.3	70	130			
Surr: Toluene-d8	9.8		10.00		97.8	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **11/30/2012**	SeqNo: **209614** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.9	70	130			
Toluene	19	1.0	20.00	0	96.1	80	120			
Chlorobenzene	19	1.0	20.00	0	94.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.9	73.7	122			
Trichloroethene (TCE)	16	1.0	20.00	0	81.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.7	70	130			
Surr: Toluene-d8	9.3		10.00		93.4	70	130			

Qu rs:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1211A29**

02-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211a41-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **12/1/2012**	SeqNo: **209651** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128			
Toluene	20	1.0	20.00	0	97.9	70	130			
Chlorobenzene	19	1.0	20.00	0	96.9	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.6	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.7		10.00		96.9	70	130			

Sample ID **1211a41-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R7228**	RunNo: **7228**
Prep Date:	Analysis Date: **12/1/2012**	SeqNo: **209652** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	66.8	128	0.638	16.7	
Toluene	19	1.0	20.00	0	95.2	70	130	2.84	18.7	
Chlorobenzene	19	1.0	20.00	0	94.0	70	130	3.07	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	98.2	70	130	4.95	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	82.1	70	130	4.81	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.2		10.00		91.5	70	130	0	0	
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130	0	0	
Surr: Toluene-d8	9.5		10.00		94.7	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup Work Order Number: 1211A29

Received by/date: AT 11/29/12

Logged By: **Anne Thorne** 11/29/2012 7:35:00 AM Anne Thorne

Completed By: **Anne Thorne** 11/29/2012 Anne Thorne

Reviewed By: IO 11/29/2012

Chain of Custody

1. Were seals intact? Yes ☑ No ☐ Not Present ☐
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: Western Refining

Mailing Address: Rt 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 4th QTR 2012 Groundwater Sampling

Project #: Quarterly Sampling

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1211A29	8015B (DRO/GRO)	WQCC Metals (Total and Dissolved)	BOD and COD				Air Bubbles (Y or N)
~~11/29/12~~			~~Pilot Eff~~				X	X	X	X			
~~11/29/12~~			~~NAPIS Eff~~				X	X	X		X	X	
11/29/12	1400	W	AL-2 to EP-1	5-Plastic 6-VOA	3-NONE 2-HNO3 1-H2SO4 5-HCl	-001	X	X	X		X	X	
11/29/12	1010	W	FIELD BLANK	3-VOA	3-HCl	-002	X						
~~11/29/12~~	—	W	~~TRIP BLANK~~	3-VOA	3-HCl	~~-003~~	X						
						A 11/29/12							

Date:	Time:	Relinquished by:	Received by:	Date	Time
11/29/12	0735			11/29/12	0735
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
NO 8270 Sample /A 11/29/12

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 11, 2013

Cheryl Johnson
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0231
FAX (505) 722-0210

RE: 4th QTR 2012 Groundwater Sampling OrderNo.: 1212231

Dear Cheryl Johnson:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/5/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212231-001 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 12/5/2012 10:11:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Acenaphthylene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Aniline	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Anthracene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Azobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benz(a)anthracene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benzo(a)pyrene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benzo(b)fluoranthene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benzo(g,h,i)perylene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benzo(k)fluoranthene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Benzoic acid	ND	100		µg/L	1	12/7/2012 5:44:31 PM
Benzyl alcohol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Bis(2-chloroethoxy)methane	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Bis(2-chloroethyl)ether	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Bis(2-chloroisopropyl)ether	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Bis(2-ethylhexyl)phthalate	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Bromophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Butyl benzyl phthalate	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Carbazole	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Chloro-3-methylphenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Chloroaniline	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Chloronaphthalene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Chlorophenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Chlorophenyl phenyl ether	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Chrysene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Di-n-butyl phthalate	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Di-n-octyl phthalate	ND	100		µg/L	1	12/7/2012 5:44:31 PM
Dibenz(a,h)anthracene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Dibenzofuran	ND	50		µg/L	1	12/7/2012 5:44:31 PM
1,2-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
1,3-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
1,4-Dichlorobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
3,3'-Dichlorobenzidine	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Diethyl phthalate	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Dimethyl phthalate	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2,4-Dichlorophenol	ND	100		µg/L	1	12/7/2012 5:44:31 PM
2,4-Dimethylphenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4,6-Dinitro-2-methylphenol	ND	100		µg/L	1	12/7/2012 5:44:31 PM
2,4-Dinitrophenol	ND	100		µg/L	1	12/7/2012 5:44:31 PM
2,4-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2,6-Dinitrotoluene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Fluoranthene	ND	50		µg/L	1	12/7/2012 5:44:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212231-001 **Matrix:** AQUEOUS

Client Sample ID: AL-2 to EP-1
Collection Date: 12/5/2012 10:11:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Fluorene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Hexachlorobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Hexachlorobutadiene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Hexachlorocyclopentadiene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Hexachloroethane	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Indeno(1,2,3-cd)pyrene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Isophorone	ND	50		µg/L	1	12/7/2012 5:44:31 PM
1-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Methylnaphthalene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Methylphenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
3+4-Methylphenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
N-Nitrosodi-n-propylamine	ND	50		µg/L	1	12/7/2012 5:44:31 PM
N-Nitrosodimethylamine	ND	50		µg/L	1	12/7/2012 5:44:31 PM
N-Nitrosodiphenylamine	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Naphthalene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Nitroaniline	ND	50		µg/L	1	12/7/2012 5:44:31 PM
3-Nitroaniline	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Nitroaniline	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Nitrobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2-Nitrophenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
4-Nitrophenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Pentachlorophenol	ND	100		µg/L	1	12/7/2012 5:44:31 PM
Phenanthrene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Phenol	74	50		µg/L	1	12/7/2012 5:44:31 PM
Pyrene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Pyridine	ND	50		µg/L	1	12/7/2012 5:44:31 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2,4,5-Trichlorophenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
2,4,6-Trichlorophenol	ND	50		µg/L	1	12/7/2012 5:44:31 PM
Surr: 2,4,6-Tribromophenol	84.3	42.9-124		%REC	1	12/7/2012 5:44:31 PM
Surr: 2-Fluorobiphenyl	69.8	40-108		%REC	1	12/7/2012 5:44:31 PM
Surr: 2-Fluorophenol	51.1	23.6-94.8		%REC	1	12/7/2012 5:44:31 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	12/7/2012 5:44:31 PM
Surr: Nitrobenzene-d5	64.3	42.6-114		%REC	1	12/7/2012 5:44:31 PM
Surr: Phenol-d5	34.3	20.3-74.7		%REC	1	12/7/2012 5:44:31 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212231-002 **Matrix:** AQUEOUS

Client Sample ID: Pilot EFF
Collection Date: 12/5/2012 11:41:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **MMD**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/7/2012 5:24:33 PM
Surr: DNOP	99.7	79.5-166		%REC	1	12/7/2012 5:24:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/12/2012 3:35:01 PM
Surr: BFB	90.0	51.9-148		%REC	1	12/12/2012 3:35:01 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.018	0.0020		mg/L	1	12/18/2012 7:37:20 PM
Cadmium	ND	0.0020		mg/L	1	12/18/2012 7:37:20 PM
Chromium	ND	0.0060		mg/L	1	12/18/2012 7:37:20 PM
Copper	0.014	0.0060		mg/L	1	12/18/2012 7:37:20 PM
Iron	0.18	0.020		mg/L	1	12/18/2012 7:37:20 PM
Lead	ND	0.0050		mg/L	1	12/18/2012 7:37:20 PM
Manganese	0.030	0.0020		mg/L	1	12/18/2012 7:37:20 PM
Silver	ND	0.0050		mg/L	1	12/18/2012 7:37:20 PM
Zinc	0.058	0.010		mg/L	1	12/18/2012 7:37:20 PM
EPA METHOD 200.7: TOTAL METALS						Analyst: **JLF**
Barium	0.018	0.0020		mg/L	1	12/17/2012 4:47:45 PM
Cadmium	ND	0.0020		mg/L	1	12/17/2012 4:47:45 PM
Chromium	ND	0.0060		mg/L	1	12/17/2012 4:47:45 PM
Copper	0.031	0.0060		mg/L	1	12/17/2012 4:47:45 PM
Iron	0.23	0.020		mg/L	1	12/17/2012 4:47:45 PM
Lead	ND	0.0050		mg/L	1	12/17/2012 4:47:45 PM
Manganese	0.031	0.0020		mg/L	1	12/17/2012 4:47:45 PM
Silver	ND	0.0050		mg/L	1	12/17/2012 4:47:45 PM
Zinc	0.071	0.010		mg/L	1	12/17/2012 4:47:45 PM
EPA 200.8: DISSOLVED METALS						Analyst: **DBD**
Arsenic	0.0011	0.0010		mg/L	1	12/20/2012 11:30:01 AM
Selenium	0.0019	0.0010		mg/L	1	12/20/2012 11:30:01 AM
Uranium	0.0014	0.0010		mg/L	1	12/20/2012 11:30:01 AM
200.8 ICPMS METALS:TOTAL						Analyst: **DBD**
Arsenic	0.0027	0.0025		mg/L	2.5	12/20/2012 2:58:06 PM
Selenium	ND	0.0025		mg/L	2.5	12/18/2012 4:26:07 PM
Uranium	ND	0.0025		mg/L	2.5	12/20/2012 2:58:06 PM
EPA METHOD 245.1: MERCURY						Analyst: **TMG**
Mercury	ND	0.00020		mg/L	1	12/11/2012 2:38:13 PM
SM5210B: BOD						Analyst: **JAL**
Biochemical Oxygen Demand	180	2.0		mg/L	1	12/11/2012 4:39:00 AM
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling
Lab ID: 1212231-002 **Matrix:** AQUEOUS

Client Sample ID: Pilot EFF
Collection Date: 12/5/2012 11:41:00 AM
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Toluene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Naphthalene	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 8:25:53 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 8:25:53 PM
Acetone	25	10		µg/L	1	12/13/2012 8:25:53 PM
Bromobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Bromodichloromethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Bromoform	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Bromomethane	ND	3.0		µg/L	1	12/13/2012 8:25:53 PM
2-Butanone	ND	10		µg/L	1	12/13/2012 8:25:53 PM
Carbon disulfide	ND	10		µg/L	1	12/13/2012 8:25:53 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Chlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Chloroethane	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
Chloroform	1.1	1.0		µg/L	1	12/13/2012 8:25:53 PM
Chloromethane	ND	3.0		µg/L	1	12/13/2012 8:25:53 PM
2-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
4-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
cis-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
Dibromochloromethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Dibromomethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
2-Hexanone	ND	10		µg/L	1	12/13/2012 8:25:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Pilot EFF
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 11:41:00 AM
Lab ID: 1212231-002 **Matrix:** AQUEOUS **Received Date:** 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Isopropylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
4-Isopropyltoluene	8.0	1.0		µg/L	1	12/13/2012 8:25:53 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/13/2012 8:25:53 PM
Methylene Chloride	ND	3.0		µg/L	1	12/13/2012 8:25:53 PM
n-Butylbenzene	ND	3.0		µg/L	1	12/13/2012 8:25:53 PM
n-Propylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
sec-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Styrene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
tert-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
trans-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/13/2012 8:25:53 PM
Vinyl chloride	ND	1.0		µg/L	1	12/13/2012 8:25:53 PM
Xylenes, Total	ND	1.5		µg/L	1	12/13/2012 8:25:53 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	12/13/2012 8:25:53 PM
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	1	12/13/2012 8:25:53 PM
Surr: Dibromofluoromethane	98.5	70-130		%REC	1	12/13/2012 8:25:53 PM
Surr: Toluene-d8	89.2	70-130		%REC	1	12/13/2012 8:25:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 11:45:00 AM
Lab ID: 1212231-003
Matrix: AQUEOUS
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Toluene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Naphthalene	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 8:55:51 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 8:55:51 PM
Acetone	ND	10		µg/L	1	12/13/2012 8:55:51 PM
Bromobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Bromodichloromethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Bromoform	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Bromomethane	ND	3.0		µg/L	1	12/13/2012 8:55:51 PM
2-Butanone	ND	10		µg/L	1	12/13/2012 8:55:51 PM
Carbon disulfide	ND	10		µg/L	1	12/13/2012 8:55:51 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Chlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Chloroethane	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
Chloroform	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Chloromethane	ND	3.0		µg/L	1	12/13/2012 8:55:51 PM
2-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
4-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
cis-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
Dibromochloromethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Dibromomethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
2-Hexanone	ND	10		µg/L	1	12/13/2012 8:55:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Field Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date: 12/5/2012 11:45:00 AM
Lab ID: 1212231-003
Matrix: AQUEOUS
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Isopropylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/13/2012 8:55:51 PM
Methylene Chloride	ND	3.0		µg/L	1	12/13/2012 8:55:51 PM
n-Butylbenzene	ND	3.0		µg/L	1	12/13/2012 8:55:51 PM
n-Propylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
sec-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Styrene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
tert-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
trans-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/13/2012 8:55:51 PM
Vinyl chloride	ND	1.0		µg/L	1	12/13/2012 8:55:51 PM
Xylenes, Total	ND	1.5		µg/L	1	12/13/2012 8:55:51 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	12/13/2012 8:55:51 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	12/13/2012 8:55:51 PM
Surr: Dibromofluoromethane	95.4	70-130		%REC	1	12/13/2012 8:55:51 PM
Surr: Toluene-d8	90.4	70-130		%REC	1	12/13/2012 8:55:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1212231-004
Matrix: TRIP BLANK
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Benzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Toluene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Ethylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Naphthalene	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 9:25:47 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	12/13/2012 9:25:47 PM
Acetone	ND	10		µg/L	1	12/13/2012 9:25:47 PM
Bromobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Bromodichloromethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Bromoform	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Bromomethane	ND	3.0		µg/L	1	12/13/2012 9:25:47 PM
2-Butanone	ND	10		µg/L	1	12/13/2012 9:25:47 PM
Carbon disulfide	ND	10		µg/L	1	12/13/2012 9:25:47 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Chlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Chloroethane	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
Chloroform	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Chloromethane	ND	3.0		µg/L	1	12/13/2012 9:25:47 PM
2-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
4-Chlorotoluene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
cis-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
Dibromochloromethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Dibromomethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
2-Hexanone	ND	10		µg/L	1	12/13/2012 9:25:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: 4th QTR 2012 Groundwater Sampling
Collection Date:
Lab ID: 1212231-004
Matrix: TRIP BLANK
Received Date: 12/5/2012 2:05:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JMP**
Isopropylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	12/13/2012 9:25:47 PM
Methylene Chloride	ND	3.0		µg/L	1	12/13/2012 9:25:47 PM
n-Butylbenzene	ND	3.0		µg/L	1	12/13/2012 9:25:47 PM
n-Propylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
sec-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Styrene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
tert-Butylbenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
trans-1,2-DCE	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	12/13/2012 9:25:47 PM
Vinyl chloride	ND	1.0		µg/L	1	12/13/2012 9:25:47 PM
Xylenes, Total	ND	1.5		µg/L	1	12/13/2012 9:25:47 PM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	12/13/2012 9:25:47 PM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	1	12/13/2012 9:25:47 PM
Surr: Dibromofluoromethane	94.4	70-130		%REC	1	12/13/2012 9:25:47 PM
Surr: Toluene-d8	97.1	70-130		%REC	1	12/13/2012 9:25:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

December 13, 2012

ESC Sample # : L609825-01

Date Received : December 07, 2012
Description :

Site ID :

Sample ID : 1212231-002G PILOT EFF

Project # :

Collected By :
Collection Date : 12/05/12 11:41

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
COD	340	10.	mg/l	410.4	12/12/12	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 12/13/12 08:10 Printed: 12/13/12 08:10

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

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Mt. Juliet, TN 37122
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Albuquerque, NM 87109

Quality Assurance Report
Level II

L609825

December 13, 2012

Laboratory Blank

Analyte	Result	Units	% Rec	Limit	Batch	Date Analyzed
COD	< 10	mg/l			WG627628	12/12/12 14:04

Duplicate

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
COD	mg/l	140.	140.	0	5	L609820-02	WG627628
COD	mg/l	89.0	76.0	15.8*	5	L609494-01	WG627628

Laboratory Control Sample

Analyte	Units	Known Val	Result	% Rec	Limit	Batch
COD	mg/l	230	231.	100.	90-110	WG627628

Laboratory Control Sample Duplicate

Analyte	Units	Result	Ref	%Rec	Limit	RPD	Limit	Batch
COD	mg/l	236.	231.	103.	90-110	2.14	5	WG627628

Matrix Spike

Analyte	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
COD	mg/l	584.	180.	400	101.	90-110	L609709-01	WG627628

Matrix Spike Duplicate

Analyte	Units	MSD	Ref	%Rec	Limit	RPD	Limit	Ref Samp	Batch
COD	mg/l	584.	584.	101.	90-110	0	5	L609709-01	WG627628

Batch number /Run number / Sample number cross reference

WG627628: R2475458: L609825-01

* * Calculations are performed prior to rounding of reported values.
* Performance of this Analyte is outside of established criteria.
For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R7569**	RunNo: **7569**
Prep Date:	Analysis Date: **12/18/2012**	SeqNo: **219677** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7569**	RunNo: **7569**
Prep Date:	Analysis Date: **12/18/2012**	SeqNo: **219678** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.48	0.0060	0.5000	0	96.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.8	85	115			
Iron	0.48	0.020	0.5000	0.002200	96.5	85	115			
Lead	0.49	0.0050	0.5000	0	97.9	85	115			
Manganese	0.48	0.0020	0.5000	0	95.8	85	115			
Silver	0.10	0.0050	0.1000	0	99.7	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID **1211A87-022AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R7569**	RunNo: **7569**
Prep Date:	Analysis Date: **12/18/2012**	SeqNo: **219918** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.01005	98.8	70	130			
Cadmium	0.51	0.0020	0.5000	0	103	70	130			
Chromium	0.48	0.0060	0.5000	0	96.7	70	130			
Copper	0.52	0.0060	0.5000	0	105	70	130			
Iron	0.74	0.020	0.5000	0.2567	96.8	70	130			
Manganese	0.98	0.0020	0.5000	0.5121	94.1	70	130			
Silver	0.094	0.0050	0.1000	0	93.6	70	130			
Zinc	0.47	0.010	0.5000	0.001350	93.1	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A87-022AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Dissolved Metals**

Client ID: **BatchQC** Batch ID: **R7569** RunNo: **7569**

Prep Date: Analysis Date: **12/18/2012** SeqNo: **219919** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.01005	97.4	70	130	1.42	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	1.76	20	
Chromium	0.48	0.0060	0.5000	0	95.0	70	130	1.74	20	
Copper	0.52	0.0060	0.5000	0	104	70	130	1.06	20	
Iron	0.74	0.020	0.5000	0.2567	95.9	70	130	0.607	20	
Manganese	0.98	0.0020	0.5000	0.5121	93.3	70	130	0.417	20	
Silver	0.090	0.0050	0.1000	0	90.3	70	130	3.63	20	
Zinc	0.46	0.010	0.5000	0.001350	92.0	70	130	1.16	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5180**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **PBW**	Batch ID: **5180**	RunNo: **7435**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215494** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID **LCS-5180**	SampType: **LCS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **LCSW**	Batch ID: **5180**	RunNo: **7435**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215495** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.52	0.0020	0.5000	0	104	85	115			
Chromium	0.51	0.0060	0.5000	0	102	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.50	0.020	0.5000	0	99.6	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	99.4	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Sample ID **1211A90-015DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **5180**	RunNo: **7544**
Prep Date: **12/10/2012**	Analysis Date: **12/17/2012**	SeqNo: **218971** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.78	0.0020	0.5000	0.3290	90.0	70	130			

Sample ID **1211A90-015DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **5180**	RunNo: **7544**
Prep Date: **12/10/2012**	Analysis Date: **12/17/2012**	SeqNo: **218972** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	0.79	0.0020	0.5000	0.3290	93.0	70	130	1.88	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1211A90-015DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **5180**	RunNo: **7544**
Prep Date: **12/10/2012**	Analysis Date: **12/17/2012**	SeqNo: **218974** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.5	0.10	0.5000	1.057	97.3	70	130			

Sample ID **1211A90-015DMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Total Metals**
Client ID: **BatchQC**	Batch ID: **5180**	RunNo: **7544**
Prep Date: **12/10/2012**	Analysis Date: **12/17/2012**	SeqNo: **218975** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	1.6	0.10	0.5000	1.057	104	70	130	2.02	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221764** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.8	85	115			
Selenium	0.025	0.0010	0.02500	0	98.9	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R7633**	RunNo: **7633**
Prep Date:	Analysis Date: **12/20/2012**	SeqNo: **221765** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.8	85	115			
Selenium	0.024	0.0010	0.02500	0	96.9	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **LLLCS-5180**	SampType: **LCSLL**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **BatchQC**	Batch ID: **5180**	RunNo: **7580**
Prep Date: **12/10/2012**	Analysis Date: **12/18/2012**	SeqNo: **220017** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.053	0.0025	0.05000	0	106	85	115			
Selenium	0.056	0.0025	0.05000	0	111	85	115			
Uranium	0.052	0.0025	0.05000	0	103	85	115			

Sample ID **MB-5180**	SampType: **MBLK**	TestCode: **200.8 ICPMS Metals:Total**
Client ID: **PBW**	Batch ID: **5180**	RunNo: **7580**
Prep Date: **12/10/2012**	Analysis Date: **12/18/2012**	SeqNo: **220022** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0025								
Selenium	ND	0.0025								
Uranium	ND	0.0025								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5199**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **5199**	RunNo: **7426**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215141** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-5199**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **5199**	RunNo: **7426**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215142** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	80	120			

Sample ID **1212327-001EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **5199**	RunNo: **7426**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215144** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0060	0.00020	0.005000	0	120	75	125			

Sample ID **1212327-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
nt ID: **BatchQC**	Batch ID: **5199**	RunNo: **7426**
Prep Date: **12/10/2012**	Analysis Date: **12/11/2012**	SeqNo: **215145** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0058	0.00020	0.005000	0	116	75	125	3.48	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5160**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213899** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	1.0		1.000		103	79.5	166			

Sample ID **LCS-5160**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213900** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.6	1.0	5.000	0	112	64.4	132			
Surr: DNOP	0.48		0.5000		96.6	79.5	166			

Sample ID **LCSD-5160**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **5160**	RunNo: **7361**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **213901** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	64.4	132	2.75	20	
Surr: DNOP	0.49		0.5000		97.9	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214089** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	19		20.00		95.6	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214090** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		98.9	51.9	148			

Sample ID **1212334-002AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214102** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		101	51.9	148			

Sample ID **1212334-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R7391**	RunNo: **7391**
Prep Date:	Analysis Date: **12/7/2012**	SeqNo: **214103** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	20		20.00		98.0	51.9	148	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R7465**	RunNo: **7465**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216511** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		92.3	51.9	148			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R7465**	RunNo: **7465**
Prep Date:	Analysis Date: **12/12/2012**	SeqNo: **216512** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.54	0.050	0.5000	0	108	75.9	119			
Surr: BFB	20		20.00		97.6	51.9	148			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **1212358-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **R7465**			RunNo: **7465**						
Prep Date:	Analysis Date: **12/12/2012**			SeqNo: **216515**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.6	63.5	131			
Surr: BFB	20		20.00		98.5	51.9	148			

Sample ID **1212358-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**						
Client ID: **BatchQC**	Batch ID: **R7465**			RunNo: **7465**						
Prep Date:	Analysis Date: **12/12/2012**			SeqNo: **216516**		Units: **mg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	63.5	131	1.67	16.7	
Surr: BFB	19		20.00		96.9	51.9	148	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: 1212231

Hall Environmental Analysis Laboratory, Inc.

11-Jan-13

Client: Western Refining Southwest, Gallup
Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R7498**	RunNo: **7498**	
Prep Date:	Analysis Date: **12/13/2012**	SeqNo: **217407**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
[illegible]none	ND	10								
[illegible]n disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

[illegible]lifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R7498**	RunNo: **7498**
Prep Date:	Analysis Date: **12/13/2012**	SeqNo: **217407** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.0	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		90.5	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.4	70	130			
Surr: Toluene-d8	8.8		10.00		88.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7498**	RunNo: **7498**
Prep Date:	Analysis Date: **12/13/2012**	SeqNo: **217408** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.7	70	130			
Toluene	18	1.0	20.00	0	88.6	80	120			
Chlorobenzene	19	1.0	20.00	0	95.4	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	87.3	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1212231**

Hall Environmental Analysis Laboratory, Inc.

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R7498**	RunNo: **7498**
Prep Date:	Analysis Date: **12/13/2012**	SeqNo: **217408** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.3		10.00		93.3	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **mb-5155**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214031** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **mb-5155**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214031** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
oaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		90.4	42.9	124			
Surr: 2-Fluorobiphenyl	86		100.0		86.3	40	108			
Surr: 2-Fluorophenol	150		200.0		76.6	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		76.2	41.9	103			
Surr: Nitrobenzene-d5	92		100.0		92.3	42.6	114			
Surr: Phenol-d5	100		200.0		50.8	20.3	74.7			

Qualifiers:

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- Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **lcs-5155**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214038** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	80	10	100.0	0	79.8	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	77.0	46.3	108			
2-Chlorophenol	140	10	200.0	0	70.0	38	99.3			
1,4-Dichlorobenzene	71	10	100.0	0	70.8	30.8	80.6			
2,4-Dinitrotoluene	82	10	100.0	0	82.4	46.1	117			
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.7	39.3	110			
4-Nitrophenol	74	10	200.0	0	36.9	29.8	67			
Pentachlorophenol	110	20	200.0	0	55.6	32.2	95.7			
Phenol	83	10	200.0	0	41.4	27	64.8			
Pyrene	73	10	100.0	0	72.7	44.7	97.3			
1,2,4-Trichlorobenzene	72	10	100.0	0	71.6	36.6	86.7			
Surr: 2,4,6-Tribromophenol	170		200.0		86.8	42.9	124			
Surr: 2-Fluorobiphenyl	90		100.0		90.2	40	108			
Surr: 2-Fluorophenol	130		200.0		65.5	23.6	94.8			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.9	103			
Surr: Nitrobenzene-d5	87		100.0		86.7	42.6	114			
Surr: Phenol-d5	98		200.0		49.0	20.3	74.7			

Sample ID **lcsd-5155**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **5155**	RunNo: **7389**
Prep Date: **12/7/2012**	Analysis Date: **12/7/2012**	SeqNo: **214043** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	76	10	100.0	0	75.9	43.3	92	5.11	25	
4-Chloro-3-methylphenol	150	10	200.0	0	75.7	46.3	108	1.61	32.7	
2-Chlorophenol	150	10	200.0	0	76.2	38	99.3	8.54	20	
1,4-Dichlorobenzene	73	10	100.0	0	72.8	30.8	80.6	2.76	20	
2,4-Dinitrotoluene	80	10	100.0	0	80.3	46.1	117	2.56	29.9	
N-Nitrosodi-n-propylamine	78	10	100.0	0	77.7	39.3	110	3.88	23.1	
4-Nitrophenol	72	10	200.0	0	36.0	29.8	67	2.30	40.5	
Pentachlorophenol	110	20	200.0	0	54.6	32.2	95.7	1.80	37.3	
Phenol	88	10	200.0	0	43.9	27	64.8	5.79	20	
Pyrene	69	10	100.0	0	69.4	44.7	97.3	4.67	26.5	
1,2,4-Trichlorobenzene	71	10	100.0	0	71.2	36.6	86.7	0.588	27.2	
Surr: 2,4,6-Tribromophenol	190		200.0		93.4	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	83		100.0		82.9	40	108	0	0	
Surr: 2-Fluorophenol	140		200.0		71.3	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	75		100.0		74.5	41.9	103	0	0	
Surr: Nitrobenzene-d5	88		100.0		88.0	42.6	114	0	0	
Surr: Phenol-d5	100		200.0		51.8	20.3	74.7	0	0	

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1212231**

11-Jan-13

Client: Western Refining Southwest, Gallup

Project: 4th QTR 2012 Groundwater Sampling

Sample ID **MB-5128**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **5128**	RunNo: **7409**							
Prep Date: **12/6/2012**	Analysis Date: **12/11/2012**	SeqNo: **214647**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **MB-5128**	SampType: **MBLK**	TestCode: **SM5210B: BOD**							
Client ID: **PBW**	Batch ID: **5128**	RunNo: **7409**							
Prep Date: **12/6/2012**	Analysis Date: **12/11/2012**	SeqNo: **214648**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	ND	2.0								

Sample ID **LCS-5128**	SampType: **LCS**	TestCode: **SM5210B: BOD**							
Client ID: **LCSW**	Batch ID: **5128**	RunNo: **7409**							
Prep Date: **12/6/2012**	Analysis Date: **12/11/2012**	SeqNo: **214649**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	83.4	80.3	103			

Sample ID **LCSD-5128**	SampType: **LCSD**	TestCode: **SM5210B: BOD**							
Client ID: **LCSS02**	Batch ID: **5128**	RunNo: **7409**							
Prep Date: **12/6/2012**	Analysis Date: **12/11/2012**	SeqNo: **214650**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	170	2.0	198.0	0	83.9	80.3	103	0.603	20	

Sample ID **1212180-001CDUP**	SampType: **DUP**	TestCode: **SM5210B: BOD**							
Client ID: **BatchQC**	Batch ID: **5128**	RunNo: **7409**							
Prep Date: **12/6/2012**	Analysis Date: **12/11/2012**	SeqNo: **214652**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Biochemical Oxygen Demand	6.5	2.0						0.309	20	

Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name:	Western Refining Gallup	Work Order Number:	1212231
Received by/date:	MG	12/05/12	
Logged By:	Lindsay Mangin	12/5/2012 2:05:00 PM	
Completed By:	Lindsay Mangin	12/5/2012 2:30:54 PM	
Reviewed By:	IO	12/05/2012	

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 3
(<2 or >12 unless noted)
Adjusted?
Checked by: MG

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING

Mailing Address: RT 3 BOX 7
GALLUP, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: 4th QTR 2012 GROUNDWATER SAMPLING

Project #: QUARTERLY SAMPLING

Project Manager: Cheryl Johnson

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature: [redacted]

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	[redacted]
12/5/12	1011	W	AL-Z TO EP-1	1-AMBER	NONE	-001
12/5/12	1141	W	PILOT EFF	4-PLASTIC 6-VOA	2-NONE 1-H2SO4 5-HCL 2-HNO3	-002
12/5/12	1145	W	FIELD BLANK	3-VOA	3-HCL	-003
12/5/12	-	W	TRIP BLANK	3-VOA	3-HCL	-004

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + MTBE	8270 (Semi-VOA) + Phenols	WQCC METALS (TOTAL AND DISSOLVED)	BOD and COD			Air Bubbles (Y or N)
										X					
		X							X		X	X			
									X						
									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
12/5/12	1405				
Date:	Time:	Relinquished by:	Received by:	12/05/12	1405

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.