

GW - 001

REPORTS

**River Terrace Voluntary
Corrective Measures
Bioventing System
Annual Report
(Jan. – Dec. 2008)**

Submitted 3/2009

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Wednesday, July 08, 2009 10:30 AM
To: Schmaltz, Randy
Cc: Cobrain, Dave, NMENV; Kieling, John, NMENV; Chavez, Carl J, EMNRD; Hains, Allen; Martinez, Cynthia, NMENV
Subject: River Terrace dewatering modification
Attachments: GRCB App dewatering mod 7_9_09.pdf

Randy

This will go out in the mail tomorrow.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
Phone: (505) 476-6045; Main No.: (505)-476-6000
Fax: (505)-476-6060
hope.monzeglio@state.nm.us

Websites:

New Mexico Environment Department
Hazardous Waste Bureau



BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1

Santa Fe, New Mexico 87505-6303

Phone (505) 476-6000 Fax (505) 476-6030

www.nmenv.state.nm.us



RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 9, 2009

Mr. Randy Schmaltz
Environmental Manager
Western Refining, Bloomfield Refinery
P.O. Box 159
Bloomfield, New Mexico 87413

RE: APPROVAL
RIVER TERRACE VOLUNTARY CORRECTIVE MEASURES
BIOVENTING SYSTEM DEWATERING MODIFICATION
WESTERN REFINING SOUTHWEST, INC., BLOOMFIELD REFINERY
EPA ID# NMD089416416
GRCB-09-002

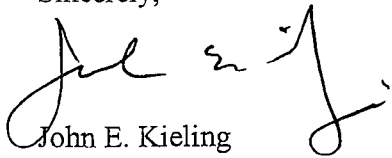
Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest, Inc., Bloomfield Refinery's (Western) letter, dated July 1, 2009 regarding the *River Terrace Voluntary Corrective Measures Bioventing System Dewatering Modification*. NMED hereby approves the installation of the groundwater collection gallery.

Mr. Schmaltz
July 9, 2009
Page 2 of 2

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,

A handwritten signature in black ink, appearing to read "John E. Kieling". The signature is stylized with a large initial "J" and a long horizontal stroke.

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, OCD
A. Hains, Western El Paso
File: GRCB 2009 and Reading
GRCB-09-002



BLOOMFIELD REFINERY

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April 8, 2009

Certified Mail: 7007 0220 0004 0187 0688
7007 0220 0004 0187 0695

Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Bldg 1
Santa Fe, NM 87505

Brad Jones
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

**RE: Corrective Measures Study and Corrective Measures
Implementation (Site Investigation and Abatement Plan)
2008 Groundwater Remediation and Monitoring Annual Report
Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001**

Dear Hope and Brad:

Western Refining Southwest Inc. - Bloomfield Refinery submits the 2008 Annual Groundwater Report as required by NMED and OCD directives. This report summarizes all groundwater monitoring activities that occurred in 2008.

If you have questions or would like to discuss any aspect of the report, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Environmental Manager
Western Refining Southwest, Inc. - Bloomfield Refinery

cc: Laurie King, EPA Region VI
Brandon Powell, NM OCD Aztec District Office
Carl Chavez - NMOCD Santa Fe - w/o enclosure
Allen Hains, Western Refining - El Paso



BLOOMFIELD REFINERY

RECEIVED

2009 MAR 19 PM 12 04

Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Bldg 1
Santa Fe, NM 87505

Certified Mail: # 7007 0220 0004 0187 0633

March 17, 2009

RE: Western Refining Southwest, Inc. - Bloomfield Refinery
EPA ID# NMD089416416
GW - 001

Dear Ms. Monzeglio,

Bloomfield Refinery personnel will begin collecting semi-annual groundwater samples the week of April 6, 2009.

Refinery personnel will follow guidelines from the *Facility-Wide Groundwater Monitoring Plan (Revised May 2008)*.

MW #1, MW #6, MW #8, MW #12, MW #13, MW #20, MW #30, MW #33, MW #35, MW #37, and MW #38 will be sampled for the target VOC's (target list - EPA Method 8260), TPH-GRO/DRO (EPA Method 8015B). Samples will also be collected from CW 0+60, CW 25+95, and analyzed for VOC's (target list - EPA Method 8260), TPH-DRO (EPA Method 8015B). Each observation well will be sampled and analyzed for VOC's (target list - EPA Method 8260), TPH-DRO/GRO (EPA Method 8015B). East Outfall #2 and East Outfall #3 will be sampled and analyzed for VOC's (target list - EPA Method 8260), dissolved metals and total metals (target list - EPA Method 6010/7470), carbon dioxide/alkalinity (SM 2320B), and anions (EPA Method 300.0). In addition, samples will be collected from Seep # 1, #6, #7, #8, and #9, if sufficient water is present and analyzed for VOC's (target list - EPA Method 8260), SVOCs (EPA Method 8270), TDS, carbon dioxide/alkalinity (SM 2320B), and anions (EPA Method 300.0).

All wells within the facility will be monitored for groundwater elevation.

If any representatives from NMED would like to participate, please contact me so that safety orientation training can be scheduled for incoming personnel.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

Cindy Hurtado
Environmental Coordinator
Western Refining Southwest, Inc. - Bloomfield Refinery

Cc: Randy Schmaltz - Environmental Manager - Bloomfield Refinery
Brad Jones - Oil Conservation Division - Santa Fe
Carl Chavez - Oil Conservation Division - Santa Fe

February 23, 2009

RECEIVED
2009 FEB 24 PM 1 23Certified Mail: 7007 0220 0004 0187 0497
7007 0220 0004 0187 0503Hope Monzeglio
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Bldg 1
Santa Fe, NM 87505Brad Jones
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505**Re: River Terrace Voluntary Corrective Measures
Bioventing System Annual Report
January 2008 through December 2008**

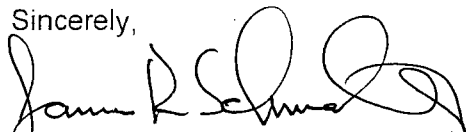
Dear Hope and Brad,

Western Refining - Bloomfield Refinery submits the River Terrace Voluntary Corrective Measures Bioventing System Annual Report as requested by NMED. This report summarizes data gathered throughout 2008.

After reviewing three years of operation of the bioventing system, Bloomfield Refinery would like to propose a reduction in monitoring the wells on the eastern portion of the River Terrace (TP #3, TP #7, TP #9, TP #10, TP #11, TP #12, and TP #13) to an annual event instead of quarterly. Data review indicates that those wells do not contain contaminant concentrations over WQCC standards. As detailed in the enclosed report, there have never been any exceedences of organic WQCC standards since the initial baseline sampling conducted in August 2005 at these locations. There have been only a few very minor exceedences of the action level for lead, which are most likely attributable to turbid water samples and not dissolved metals concentrations, and all of these occurred during the 2nd and 3rd quarters of 2007 with no exceedences since.

If you have questions or would like to discuss any aspect of the report, please contact me at (505) 632-4171.

Sincerely,

James R. Schmaltz
Environmental Manager
Bloomfield RefineryCc: Laurie King, USEPA - Region VI
Brandon Powell - NMOCD Aztec District Office
Carl Chavez - NMOCD Santa Fe - w/o enclosure
Allen Hains - Western Refining - El Paso

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Section 1.0 Executive Summary

Executive Summary

On-going sampling at the River Terrace area is conducted in accordance with the approved Bioventing System Monitoring Plan, dated October 28, 2006, and in accordance with an NMED comment letter dated June 13, 2007.

A facility plot plan and river terrace project plot plan are provided in Section 8.0

The bioventing system was installed to provide oxygen to the subsurface to support aerobic biodegradation of petroleum hydrocarbons that were identified in soil along the western portion of the river terrace. The project includes a dewatering system to provide an increased vadose zone for bioremedial activity and also provides direct ground water remediation via "pump and treat".

Quarterly analysis of the groundwater and soil gas of the TP, DW, and MW wells provide periodic progress information of the bioventing system. Performance monitoring offers periodic feedback of remediation operation and GAC filter capability.

Field data collected throughout 2008 indicate the bioventing system is continuing to enhance bioremedial activity within the river terrace area. Soil gas concentrations collected in the field show that the bioventing system provides sufficient oxygen supply to oxygenate the subsurface, supporting aerobic biodegradation of hydrocarbons. These results suggest that as treatment progresses, petroleum hydrocarbon concentrations will diminish.

Section 2.0 Introduction

INTRODUCTION

Owner: Western Refining (parent corporation)
123 W. Mills Ave., Suite 200
El Paso, TX 79901

Operator: Western Refining Southwest, Inc. (postal address)
P.O. Box 159
Bloomfield, New Mexico 87413

Western Refining Southwest, Inc. (physical address)
#50 Rd 4990
Bloomfield, New Mexico 87413

Facility Name: Bloomfield Refinery (physical address)
#50 Rd 4990
Bloomfield, New Mexico 87413

Facility Status Corrective Action/Compliance

US EPA ID NMD089416416

SIC Code 2911

Purpose of Monitoring: River Terrace Corrective Measures – Assess and
Provide Periodic Progress Information

Type of Monitoring: Periodic Groundwater and Soil Vapor Monitoring

BACKGROUND INFORMATION

SITE LOCATION AND DESCRIPTION

The Bloomfield Refinery is a crude oil refining facility with a crude capacity of 18,000 barrels per day. It is located approximately 1 mile south of Bloomfield, New Mexico, in San Juan County, latitude N36 41' 87", longitude W107 58' 70". It is further located approximately ½ mile east of State Route 550 on Count Road 4990 (a.k.a. Sullivan Road).

The refinery is located on a bluff 120 feet above the south side of the San Juan River. The top of the bluff is relatively flat and is at an elevation of 5,540 feet above sea level. The geological units that comprise the site include, in order of increasing depth, San Juan River Alluvium, Quaternary apron deposits, Aeolian sand and silt, Jackson Lake Terrace, and the Tertiary Nacimiento Formation. An unnamed arroyo flows toward the San Juan River on the southern and western edges of the site. East of the site, a well-defined arroyo cuts a small canyon from the bluff to the San Juan River. Hammond Ditch lies on the bluff between the limit of the Jackson Lake Terrace and the refinery.

Refinery offices are on the western end of the facility, along with warehouse space, maintenance areas, and a storage yard containing used material (e.g., pipes, valves). Petroleum processing units, located in the northwest portion of the refinery, include the crude unit, fluidized cracking unit, catalytic polymerization unit, and hydrodesulfurization unit. The API Separator and the aeration lagoons are located in the north central section of the refinery.

In the central portion of the site, aboveground storage tanks (AST's) occupy a large percentage of refinery property. South of the refinery and across Sullivan Road are terminals for loading product and off-loading crude, as well as gas storage and hazardous waste storage.

Western Refining merged with San Juan Refining Company (SJRC) May 31, 2007. The refinery is operated by Western Refining Southwest, Inc. The historical and current activities conducted at the refinery are petroleum processing, crude and product storage, crude unloading and product loading, waste management (closed and existing facilities), and offices and non-petroleum material storage

Sheet piling was installed along with a bentonite slurry wall adjacent to the San Juan River, at the River Terrace, in order to intercept a small hydrocarbon seep that had been detected in the area.

2004

MW #48 & MW #49 and 8 temporary piezometers were installed to launch a River Terrace Investigation. Several temporary piezometers were drilled on the north side of Hammond Ditch to chart the top of the Nacimiento Formation.

2005

The North Boundary Barrier Wall installation was completed March 2005. In April, five more temporary piezometers were installed at the River Terrace. Dewatering Wells #1 and #2 and thirteen bioventing wells were drilled in August at the River Terrace. Construction of the River Terrace Bioventing Project was initiated in August. The system was put on-line in January 2006.

2006

System monitoring began in January abiding by the guidelines from the River Terrace Voluntary Corrective Measures Monitoring Plan approved by OCD and NMED. The In-Situ Respiration test was conducted in May 2006. Quarterly performance monitoring was carried out in March, June, September, and December of 2006.

2007

The dewatering pumps failed and were replaced in February. Breakthrough in the lead GAC (V-612) was detected in April at which time it was taken out of service and V-611 became the lead GAC. V-612 was replaced and back in service in June as the lag filter. Quarterly performance monitoring for the Bioventing System occurred in February, June, August, and October. The In-Situ Respiration Test was conducted in September 2007.

2008

The blower bearings were replaced in February. The dewatering pump at MW #48 failed and was replaced in August. Blower piping was upgraded in October. Quarterly performance monitoring for the Bioventing System occurred in March, May, July, and November.

Section 3.0 Scope of Activities

Scope of Activities

Bloomfield Refinery initiated and constructed the River Terrace Bioventing Project to provide oxygen to the subsurface and support aerobic biodegradation of petroleum hydrocarbons existing in the soil at the River Terrace. The system was put on-line in January 2006 at which time the Voluntary Corrective Measure Bioventing Monitoring Plan was followed.

The NMED letter from June 13, 2007 (Direction to Modify Future Monitoring as reported in the River Terrace Voluntary Corrective Measures Bioventing System Annual Report January 2006 through December 2006) revised the monitoring plan to include additional metals analysis and incorporate quarterly sampling of TP-7. These revisions have been implemented since the second quarter sampling event of 2007 and throughout 2008.

Performance Monitoring

On-going performance monitoring activities continued on a quarterly basis to assess the progress of the remediation system in reducing fuel hydrocarbons. Laboratory analysis of groundwater, treated groundwater, and soil gas are included in the on-going performance monitoring program. In addition, certain field parameter data were collected using portable gauges and gas meters.

Section 5.0 of this report summarizes the field parameters and analytical data obtained during routine performance monitoring during 2006, 2007, and 2008.

Pressure Readings

Pressure readings were collected from each of the TP wells, MW #49, and DW #1 using a hand-held Magnahelic gauge connected to the sample port at the top of each well. Injection pressure and flow rates were also collected from all bioventing wells (BV wells).

This data is available in Section 5.0 Tab 1 and Tab 4 in this report.

Groundwater

First quarter groundwater samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. TP-7 was sampled after a 24 hour recharge time. Groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and Total Lead (EPA Method 6010C). DW #1 was also analyzed for Mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP.

Second quarter sampling occurred during the week of May 12, 2008. TP-7 was sampled after a 24 hour recharge time. Annual analysis of chromium and barium (EPA Method 6010B) was performed during the second quarter event. Lead

analysis (EPA Method 6010B) was performed on all of the TP Wells, MW #49, and DW#1. DW #1 samples were also analyzed for mercury (EPA Method 7470). In addition, groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B). Field measurements included temperature, pH, conductivity, DO, and ORP.

Third quarter monitoring occurred during the week of July 14, 2008 and fourth quarter monitoring was conducted during the week of November 10, 2008. During those sampling events, all TP Wells, MW #49, and DW #1 groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and lead analysis (EPA Method 6010B). DW #1 samples were also analyzed for mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP. TP-7 was sampled after a 24 hour recharge time.

A summary of the groundwater monitoring results can be found in Section 5.0 Tab 2 and Tab 3.

Soil Gas

First quarter samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. Soil gas analysis included BTEX (8021B) and GRO (8015B). Field measurements of vapor-phase organics (using a PID) and oxygen and carbon dioxide concentrations (using a multi-gas meter) were taken. The second quarter monitoring event utilized the same collection sites, and the same methods and parameters. Second quarter samples were collected the week of May 12, 2008. Third quarter monitoring was conducted during the week of July 14, 2008 and fourth quarter monitoring was carried out during the week of November 10, 2008.

A summary of the soil gas monitoring results can be found in Section 5.0 Tab 1.

GAC Filter Monitoring

Extracted groundwater from the dewatering wells is treated prior to discharge to the raw water ponds, located within the east portion of the refinery. Extracted groundwater is pumped through two GAC filters positioned in series for removal of dissolved-phase hydrocarbons.

GAC filter sampling includes influent samples from a sample port located upstream of the GAC filters, and effluent samples collected from ports located after each of the lead and lag GAC filters. Monitoring the performance of the GAC filters is necessary to estimate GAC filter change-out frequency.

GAC filter influent samples (GAC Inf) and effluent samples collected downstream of the lag GAC filter (GAC 1 Eff – V612) were collected quarterly. Effluent samples from the lead GAC filter (GAC 2 Eff – V-611) were obtained monthly.

Samples were analyzed for BTEX by EPA Method 8021B, GRO and DRO by EPA Method 8015B.

Efforts have been made to optimize the dewatering system without damaging the pumps by adjusting pump speed to match pump outflow with water table inflow. Fluctuations in the flow of the San Juan River influence the water table at the River Terrace, and therefore adversely affect the attempts at optimizing the dewatering system. Pumps have been operated at a low flow rate in order to preserve the integrity of the pump during low river flows. Although the low flow rate keeps the pumps in service, the water table isn't significantly reduced during high river flow rates. Options to optimize pump rates are being explored.

Routine maintenance occurred throughout 2008. The blower bearings were replaced in February. The dewatering pump at MW #48 failed and was replaced in August. Blower piping was upgraded in October.

A summary of the GAC filter performance monitoring results is presented in Section 5.0 Tab 5 of this report.

Field Data Collection

All water/product levels were measured to an accuracy of 0.01 foot using a Geotech Interface Probe. After determining water levels, purge volumes were calculated.

Soil gas purging and sampling were done before groundwater purging and sampling. After sufficient purging (three well volumes), soil gas samples were collected using the vacuum pump. Field measurements of vapor-phase organics (using a PID meter), oxygen, and carbon dioxide concentrations (using a multi-gas meter) were recorded using portable field instruments.

Prior to soil gas purging, the YSI 550A Dissolved Oxygen Probe was used to determine dissolved oxygen (DO) levels. At least three well volumes were purged from each well prior to groundwater sampling. Electrical conductance (E.C.), pH, temperature, and oxidation reduction potential were monitored during purging using an Ultrameter 6P. The wells were considered satisfactorily purged when the pH, E.C., and temperature values did not vary by more than 10 percent for at least three measurements.

Field data and analytical results can be found in Section 5.0 – Tabs 1, 2, 3, 4 and 5.

All purged water was collected and disposed of through the refinery wastewater system.

Section 4.0 Regulatory Criteria / Groundwater Cleanup Standards

Table of New Mexico and USEPA Groundwater Standards

Metals	(mg/l)
Antimony	0.006 ²
Arsenic	0.01 ²
Barium	1.0
Beryllium	0.004 ²
Cadmium	0.005 ²
Chromium	0.05
Cobalt	0.05
Copper	1.0
Cyanide	0.2
Lead	0.05
Mercury	0.002
Nickel	0.200
Selenium	0.05
Silver	0.05
Uranium	0.03
Vanadium	0.18 ³
Zinc	10.0

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

<i>Semivolatiles</i>	(ug/l)
1,2,4-Trichlorobenzene	70 ²
1,2-Dichlorobenzene	49 ³
1,3-Dichlorobenzene	14 ³
1,4-Dichlorobenzene	0.47 ³
2,4,5-Trichlorophenol	3,700 ³
2,4,6-Trichlorophenol	6.1 ³
2,4-Dichlorophenol	110 ³
2,4-Dimethylphenol	730 ³
2,4-Dinitrophenol	73 ³
2,4-Dinitrotoluene	73 ³
2,6-Dinitrotoluene	37 ³
2-Chloronaphthalene	490 ³
2-Chlorophenol	30 ³
2-Methylnaphthalene	Ne
2-Methylphenol	1,800 ³
2-Nitroaniline	110 ³
2-Nitrophenol	Ne
3,3'-Dichlorobenzidine	Ne
3+4-Methylphenol	180 ³
3-Nitroaniline	Ne
4,6-Dinitro-2-methylphenol	Ne
4-Bromophenyl phenyl ether	Ne
4-Chloro-3-methylphenol	Ne
4-Chloroaniline	150 ³
4-Chlorophenyl phenyl ether	Ne
4-Nitroaniline	Ne
4-Nitrophenol	290 ³
Acenaphthene	370 ³
Acenaphthylene	Ne

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

<i>Semivolatiles</i>	(ug/l)
Aniline	12 ³
Anthracene	1,800 ³
Azobenzene	0.61 ³
Benz(a)anthracene	0.029 ³
Benzo(a)pyrene	0.2 ²
Benzo(b)fluoranthene	0.029 ³
Benzo(g,h,i)perylene	Ne
Benzo(k)fluoranthene	0.29 ³
Benzoic acid	150,000 ³
Benzyl alcohol	11,000 ³
Bis(2-chloroethoxy)methane	Ne
Bis(2-chloroethyl)ether	0.0098 ³
Bis(2-chloroisopropyl)ether	Ne
Bis(2-ethylhexyl)phthalate	4.8 ³
Butyl benzyl phthalate	7,300 ³
Carbazole	3.4 ³
Chrysene	2.9 ³
Dibenz(a,h)anthracene	0.0029 ³
Dibenzofuran	12 ³
Diethyl phthalate	29,000 ³
Dimethyl phthalate	370,000 ³
Di-n-butyl phthalate	Ne
Di-n-octyl phthalate	Ne
Fluoranthene	1,500 ³
Fluorene	240 ³
Hexachlorobenzene	1.0 ²
Hexachlorobutadiene	0.86 ³
Hexachlorocyclopentadiene	50 ²
Hexachloroethane	4.8 ³

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

<i>Semivolatiles</i>	(ug/l)
Indeno(1,2,3-cd)pyrene	0.029 ³
Isophorone	71 ³
Naphthalene	30
Nitrobenzene	3.4 ³
N-Nitrosodimethylamine	0.00042 ³
N-Nitrosodi-n-propylamine	0.0096 ³
N-Nitrosodiphenylamine	14 ³
Pentachlorophenol	1 ²
Phenanthrene	Ne
Phenol	Ne
Pyrene	180 ³
Pyridine	37 ³

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

Volatiles	(ug/l)
1,1,1,2-Tetrachloroethane	0.43 ³
1,1,1-Trichloroethane	60
1,1,2,2-Tetrachloroethane	10
1,1,2-Trichloroethane	10
1,1-Dichloroethane	25
1,1-Dichloroethene	5
1,1-Dichloropropene	Ne
1,2,3-Trichlorobenzene	Ne
1,2,3-Trichloropropane	0.034 ³
1,2,4-Trichlorobenzene	70.0 ²
1,2,4-Trimethylbenzene	15.0 ³
1,2-Dibromo-3-chloropropane	0.2 ²
1,2-Dibromoethane (EDB)	0.1
1,2-Dichlorobenzene	600.0 ²
1,2-Dichloroethane (EDC)	10
1,2-Dichloropropane	5.0 ²
1,3,5-Trimethylbenzene	Ne
1,3-Dichlorobenzene	Ne
1,3-Dichloropropane	120 ³
1,4-Dichlorobenzene	75.0 ²
1-Methylnaphthalene	Ne
2,2-Dichloropropane	Ne
2-Butanone	710.0 ³
2-Chlorotoluene	120.0 ³
2-Hexanone	Ne
2-Methylnaphthalene	Ne
4-Chlorotoluene	Ne
4-Isopropyltoluene	Ne
4-Methyl-2-pentanone	Ne

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

Volatiles	(ug/l)
Acetone	5,500 ³
Benzene	5 ²
Bromobenzene	23.0 ³
Bromodichloromethane	0.18 ³
Bromoform	8.5 ³
Bromomethane	8.7 ³
Carbon disulfide	1,000 ³
Carbon Tetrachloride	5.0 ³
Chlorobenzene	100.0 ²
Chloroethane	Ne
Chloroform	100
Chloromethane	190 ³
cis-1,2-DCE	70 ²
cis-1,3-Dichloropropene	0.4 ³
Dibromochloromethane	0.13 ³
Dibromomethane	Ne
Dichlorodifluoromethane	390 ³
Ethylbenzene	700 ²
Hexachlorobutadiene	0.86 ³
Isopropylbenzene	Ne
Methyl tert-butyl ether (MTBE)	11 ³
Methylene Chloride	4.3 ³
Naphthalene	Ne
n-Butylbenzene	61 ³
n-Propylbenzene	61 ³
sec-Butylbenzene	61 ³
Styrene	100 ²
tert-Butylbenzene	61 ³
Tetrachloroethene (PCE)	5 ²

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

<i>Volatiles</i>	(ug/l)
Toluene	750
trans-1,2-DCE	100 ²
trans-1,3-Dichloropropene	0.4 ³
Trichloroethene (TCE)	5 ²
Trichlorofluoromethane	1,300 ³
Vinyl chloride	1
Xylenes, Total	620

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

Table of New Mexico and USEPA Groundwater Standards

General Chemistry	(mg/l)
Alkalinity, Total (As CaCO ₃)	Ne
Bicarbonate	Ne
Calcium	Ne
Carbonate	Ne
Chloride	250
Iron	1
Magnesium	Ne
Manganese	0.2
Nitrogen, Nitrate (As N)	10
Nitrogen, Nitrite (As N)	Ne
Nitrate (As N)+Nitrite (As N)	10
Potassium	Ne
Sodium	Ne
Sulfate	600

Groundwater Standards are WQCC 20NMAC 6.2.3103 unless otherwise indicated

2 - Federal Maximum Contaminant Level

3 - USEPA Region VI Human Health Medium-Specific Screening Level 2008

Ne - not established

20.6.2.3103 STANDARDS FOR GROUND WATER OF 10,000 mg/l TDS CONCENTRATION OR LESS: The following standards are the allowable pH range and the maximum allowable concentration in ground water for the contaminants specified unless the existing condition exceeds the standard or unless otherwise provided in Subsection D of Section 20.6.2.3109 NMAC. Regardless of whether there is one contaminant or more than one contaminant present in ground water, when an existing pH or concentration of any water contaminant exceeds the standard specified in Subsection A, B, or C of this section, the existing pH or concentration shall be the allowable limit, provided that the discharge at such concentrations will not result in concentrations at any place of withdrawal for present or reasonably foreseeable future use in excess of the standards of this section. These standards shall apply to the dissolved portion of the contaminants specified with a definition of dissolved being that given in the publication "*methods for chemical analysis of water and waste of the U.S. environmental protection agency*," with the exception that standards for mercury, organic compounds and non-aqueous phase liquids shall apply to the total unfiltered concentrations of the contaminants.

A. Human Health Standards-Ground water shall meet the standards of Subsection A and B of this section unless otherwise provided. If more than one water contaminant affecting human health is present, the toxic pollutant criteria as set forth in the definition of toxic pollutant in Section 20.6.2.1101 NMAC for the combination of contaminants, or the Human Health Standard of Subsection A of Section 20.6.2.3103 NMAC for each contaminant shall apply, whichever is more stringent. Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1)	Arsenic (As)	0.1 mg/l
(2)	Barium (Ba)	1.0 mg/l
(3)	Cadmium (Cd)	0.01 mg/l
(4)	Chromium (Cr)	0.05 mg/l
(5)	Cyanide (CN)	0.2 mg/l
(6)	Fluoride (F)	1.6 mg/l
(7)	Lead (Pb)	0.05 mg/l
(8)	Total Mercury (Hg)	0.002 mg/l
(9)	Nitrate (NO ₃ as N)	10.0 mg/l
(10)	Selenium (Se)	0.05 mg/l
(11)	Silver (Ag)	0.05 mg/l
(12)	Uranium (U)	0.03 mg/l
(13)	Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l
(14)	Benzene	0.01 mg/l
(15)	Polychlorinated biphenyls (PCB's)	0.001 mg/l
(16)	Toluene	0.75 mg/l
(17)	Carbon Tetrachloride	0.01 mg/l
(18)	1,2-dichloroethane (EDC)	0.01 mg/l
(19)	1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(20)	1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(21)	1,1,2-trichloroethylene (TCE)	0.1 mg/l
(22)	ethylbenzene	0.75 mg/l
(23)	total xylenes	0.62 mg/l
(24)	methylene chloride	0.1 mg/l
(25)	chloroform	0.1 mg/l
(26)	1,1-dichloroethane	0.025 mg/l
(27)	ethylene dibromide (EDB)	0.0001 mg/l
(28)	1,1,1-trichloroethane	0.06 mg/l
(29)	1,1,2-trichloroethane	0.01 mg/l
(30)	1,1,2,2-tetrachloroethane	0.01 mg/l
(31)	vinyl chloride	0.001 mg/l
(32)	PAHs: total naphthalene plus monomethylnaphthalenes	0.03 mg/l
(33)	benzo-a-pyrene	0.0007 mg/l

B. Other Standards for Domestic Water Supply

(1)	Chloride (Cl)	250.0 mg/l
(2)	Copper (Cu)	1.0 mg/l
(3)	Iron (Fe)	1.0 mg/l
(4)	Manganese (Mn)	0.2 mg/l
(6)	Phenols	0.005 mg/l
(7)	Sulfate (SO ₄)	600.0 mg/l
(8)	Total Dissolved Solids (TDS)	1000.0 mg/l
(9)	Zinc (Zn)	10.0 mg/l
(10)	pH	between 6 and 9

C. Standards for Irrigation Use - Ground water shall meet the standards of Subsection A, B, and C of

this section unless otherwise provided.

(1) Aluminum (Al).....	5.0 mg/l
(2) Boron (B)	0.75 mg/l
(3) Cobalt (Co)	0.05 mg/l
(4) Molybdenum (Mo)	1.0 mg/l
(5) Nickel (Ni)	0.2 mg/l

[2-18-77, 1-29-82, 11-17-83, 3-3-86, 12-1-95; 20.6.2.3103 NMAC - Rn, 20 NMAC 6.2.III.3103, 1-15-01; A, 9-26-04]

[Note: For purposes of application of the amended numeric uranium standard to past and current water discharges (as of 9-26-04), the new standard will not become effective until June 1, 2007. For any new water discharges, the uranium standard is effective 9-26-04]

NEW MEXICO ENVIRONMENT DEPARTMENT TPH SCREENING GUIDELINES
October 2006

In some instances, it may be practical to assess areas of soil contamination that are the result of releases of petroleum products such as jet fuel and diesel, using total petroleum hydrocarbon (TPH) analyses. TPH results may be used to delineate the extent of petroleum-related contamination at these sites and ascertain if the residual level of petroleum products in soil represents an unacceptable risk to future users of the site. Petroleum hydrocarbons represent complex mixtures of compounds, some of which are regulated constituents and some compounds that are not regulated. In addition, the amount and types of the constituent compounds in a petroleum hydrocarbon release differ widely depending on what type of product was spilled and how the spill has weathered. This variability makes it difficult to determine the toxicity of weathered petroleum products in soil solely from TPH results; however, these results can be used to approximate risk in some cases, depending upon the nature of the petroleum product, the release scenario, how well the site has been characterized, and anticipated potential future land uses. In some cases, site clean up cannot be based solely on results of TPH sampling. The New Mexico Environment Department (NMED) will make these determinations on a case by case basis. If NMED determines that additional data are necessary, these TPH guidelines must be used in conjunction with the screening guidelines for individual petroleum-related contaminants in Table 3 and other contaminants, as applicable.

The screening levels for each petroleum carbon range from the Massachusetts Department of Environmental Protection (MADEP) Volatile Petroleum Hydrocarbons/Extractable Petroleum Hydrocarbons (VPH/EPH) approach and the percent composition table below were used to generate screening levels corresponding to total TPH. Except for waste oil, the information in the compositional assumptions table was obtained from the Massachusetts Department of Environmental Protection guidance document *Implementation of the MADEP VPH/EPH Approach* (October 31, 2002). TPH toxicity was based only on the weighted sum of the toxicity of the hydrocarbon fractions listed in Table 1.

Table 1. TPH Compositional Assumptions in Soil

Petroleum Product	C11-C22 Aromatics	C9-C18 Aliphatics	C19-C36 Aliphatics
Diesel #2/ new crankcase oil	60%	40%	0%
#3 and #6 Fuel Oil	70%	30%	0%
Kerosene and jet fuel	30%	70%	0%
Mineral oil dielectric fluid	20%	40%	40%
Unknown oil ^a	100%	0%	0%
Waste Oil ^b	0%	0%	100%

^a Sites with oil from unknown sources must be tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

^b Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.

A TPH screening guideline was calculated for each of the types of petroleum product based on the assumed composition from Table 1 for petroleum products and the direct soil standards incorporating ceiling concentrations given in the MADEP VPH/EPH Excel spreadsheet for each of the carbon fractions. Groundwater concentrations are based on the weighted sum of the noncarcinogenic toxicity of the petroleum fractions.

Method 1 from the MADEP VPH/EPH document was applied, which represents generic cleanup standards for soil and groundwater. Method 1 applies if contamination exists in only soil and groundwater. The MADEP VPH/EPH further divides groundwater into standards. Standard GW-1 applies when groundwater may be used for drinking water purposes. GW-1 standards are based upon ingestion and use of groundwater as a potable water supply. The TPH screening guidelines for sites with potable groundwater are presented in Table 2a.

Table 2a. TPH Screening Guidelines for Potable Groundwater (GW-1)

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	Residential Direct Exposure (mg/kg)	Industrial Direct Exposure (mg/kg)	
Diesel #2/crankcase oil	520	1120	1.72
#3 and #6 Fuel Oil	440	890	1.34
Kerosene and jet fuel	760	1810	2.86
Mineral oil dielectric fluid	1440	3040	3.64
Unknown oil ^a	200	200	0.2
Waste Oil ^b	2500	5000	Petroleum-Related Contaminants
Gasoline	Not applicable	Not applicable	Petroleum-Related Contaminants
^a Sites with oil from unknown sources must be tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.			
^b Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.			

The second standard is GW-2, which is applicable for sites where the depth to groundwater is less than 15 feet from the ground surface and within 30 feet of an occupied structure. The structure may be either residential or industrial. GW-2 standards are based upon "inhalation exposures that could occur to occupants of the building impacted by volatile compounds, which partition from the groundwater" (MADEP 2001). The GW-2 screening guidelines ONLY apply for the evaluation of inhalation exposures. If potential ingestion or contact with contaminated soil and/or

groundwater could occur, then the screening guidelines provided in Table 2.a should be applied. Table 2.b lists the TPH screening guidelines for the inhalation scenario.

Table 2b. TPH Screening Guidelines – Vapor Migration and Inhalation of Groundwater (GW-2)

TPH			Concentration in Groundwater (mg/L)
Petroleum Product	Residential Direct Exposure (mg/kg)	Industrial Direct Exposure (mg/kg)	
Diesel #2/crankcase oil	880	2200	30.4
#3 and #6 Fuel Oil	860	2150	35.3
Kerosene and jet fuel	940	2350	15.7
Mineral oil dielectric fluid	1560	3400	10.4
Unknown oil ^a	800	2000	50.0
Waste Oil ^b	2500	5000	Petroleum-Related Contaminants
Gasoline	Not applicable	Not applicable	Petroleum-Related Contaminants
^a Sites with oil from unknown sources must be tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and polychlorinated biphenyls (PCBs) to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines. ^b Compositional assumption for waste oil developed by NMED is based on review of chromatographs of several types of waste oil. Sites with waste oil must be tested for VOCs, SVOCs, metals, and PCBs to determine if other potentially toxic constituents are present. The TPH guidelines in Table 2 are not designed to be protective of exposure to these constituents therefore they must be tested for, and compared to, their individual NMED soil screening guidelines.			

Mineral oil based hydraulic fluids can be evaluated for petroleum fraction toxicity using the screening guidelines from Tables 2a and 2b specified for waste oil, because this type of hydraulic fluid is composed of approximately the same range of carbon fractions as waste oil. However, these hydraulic fluids often contain proprietary additives that may be significantly more toxic than the oil itself; these additives must be considered on a site- and product-specific basis (see ATSDR hydraulic fluids profile reference). **Use of alternate screening guideline values requires prior written approval from the New Mexico Environment Department.** TPH screening guidelines in Tables 2a and 2b must be used in conjunction with the screening levels for petroleum-related contaminants given in Table 3 because the TPH screening levels are NOT designed to be protective of exposure to these individual petroleum-related contaminants. Table 3 petroleum-related contaminants screening levels are based on the *NMED Technical Background Document for Development of Soil Screening Levels, Rev 4.0 (June 2006)*.

The list of petroleum-related contaminants does not include polyaromatic hydrocarbons (PAHs) with individual screening levels that would exceed the total TPH screening levels (acenaphthene, anthracene, flouranthene, flourene, and pyrene). In addition, these TPH screening guidelines are based solely on human health, not ecological risk considerations, protection of surface water, or

potential indoor air impacts from soil vapors. Potential soil vapor impacts to structures or utilities are not addressed by these guidelines. Site-specific investigations for potential soil vapor impacts to structures or utilities must be done to assure that screenings are consistently protective of human health, welfare or use of the property. NMED believes that use of these screening guidelines will allow more efficient screenings of petroleum release sites at sites while protecting human health and the environment. Copies of the references cited below are available on the MADEP website at http://www.state.ma.us/dep/bwsc/vph_eph.htm and the NMED website at <http://www.nmenv.state.nm.us/HWB/guidance.html>.

Revised Table 3. Petroleum-Related Contaminants Screening Guidelines

Petroleum-Related Contaminants	Values for Direct Exposure to Soil		NMED DAF ^a 20 GW Protection (mg/kg in soil)	NMED DAF ^b 1 GW Protection (mg/kg in soil)
	NMED Residential SSL (mg/kg)	NMED Industrial SSL (mg/kg)		
Benzene	1.03E+01	2.58E+01	2.01E-02	1.00E-03
Toluene	2.52E+02	2.52E+02	2.17E+01	1.08E+00
Ethylbenzene	1.28E+02	1.28E+02	2.02E+01	1.01E+00
Xylenes ^c	8.20E+01	8.20E+01	2.06E+00	1.03E-01
Naphthalene	7.95E+01	3.00E+02	3.94E-01	1.97E-02
2-Methyl naphthalene ^d	5.00E+02	1.00E+03	---	---
Benzo(a)anthracene	6.21E+00	2.34E+01	1.09E+01	5.43E-01
Benzo(b)fluoranthene	6.21E+00	2.34E+01	3.35E+01	1.68E+00
Benzo(k)fluoranthene	6.21E+01	2.34E+02	3.35E+02	1.68E+01
Benzo(a)pyrene	6.21E-01	2.34E+00	2.78E+00	1.39E-01
Chrysene	6.15E+02	2.31E+03	3.48E+02	1.74E+01
Dibenz(a,h)anthracene	6.21E-01	2.34E+00	1.04E+01	5.18E-01
Indeno(1,2,3-c,d)pyrene	6.21E+00	2.34E+01	9.46E+01	4.73E+00
<p>^a DAF - Dilution Attenuation Factor</p> <p>^b For contaminated soil in contact with groundwater.</p> <p>^c Based upon total xylenes</p> <p>^d No NMED value available, value taken from Massachusetts Contingency Plan, 310 CMR 40.0985, 4/3/06.</p> <p>^e No NMED value available and leachability-based value for DAF =1 or 20 not established in the Massachusetts Contingency Plan, 310 CMR 40.0985, 4/3/06.</p>				

References

Agency for Toxic Substances and Disease Registry (ATSDR). 1997. Toxicological Profile for Hydraulic fluids.

Massachusetts Department of Environmental Protection, Bureau of Waste Site Cleanup and Office of Research and Standards. 1994. "Background Documentation for the Development of the MCP Numerical Standards."

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Contaminated Sites: Implementation of the MADEP VPH/EPH Approach," Policy, October 31, 2002.

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New Mexico Environment Department, Hazardous Waste Bureau and Groundwater Quality Bureau Voluntary Remediation Program. 2006. "Technical Background Document for Development of Soil Screening Levels." June 2006. Revision 4.0.

Section 5.0 Monitoring Results

<u>Title</u>	<u>Tab Number</u>
Soil Gas Monitoring.....	1
Groundwater Monitoring.....	2
Groundwater Metals Analysis.....	3
Bioventing Wells Pressure Reading.....	4
GAC Analysis.....	5

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
TP - #1	4th Quarter 2008	Week of 11/10/08	8.0	4.85	0.00	20.4	20.9	0.00	7.70	<0.50	8.0	31.0	210.0
	3rd Quarter 2008	Week of 7/14/08	9.9	5.37	0.00	10.6	20.9	0.00	0.16	0.19	0.2	6.3	48.0
	2nd Quarter 2008	Week of 5/12/08	7.2	3.97	0.00	10.4	20.9	0.00	0.40	<0.10	0.42	1.4	15.0
	1st Quarter 2008	Week of 03/10/08	6.8	3.63	0.00	328.0	20.9	0.40	4.50	<0.10	6.0	11.0	90.0
	4th Quarter 2007	Week of 10/29/07	9.6	5.29	0.00	51.0	19.3	0.70	6.10	<0.10	9.0	12.0	95.0
	3rd Quarter 2007	Week of 8/20/07	11.4	6.24	0.00	3275.0	17.9	4.20	23.00	<0.10	75.0	390.0	1300.0
	2nd Quarter 2007	Week of 6/18/07	10.3	5.67	0.00	301.0	19.0	0.40	<0.10	<0.10	0.28	1.0	7.4
	1st Quarter 2007	Week of 2/26/07	14.2	7.79	0.11	1981.0	20.4	0.30	6.10	8.20	150	1200.0	7300.0
	4th Quarter 2006	Week of 12/04/06	13.5	7.42	0.02	1146.0	20.8	0.30	<5.00	8.30	140.0	1000.0	8000.0
	3rd Quarter 2006	Week of 9/11/06	10.4	5.68	0.01	85.5	20.6	0.10	29.00	<2.0	36.0	170.0	920.0
	2nd Quarter 2006	Week of 6/17/06	12.5	6.8	0.05	1452.0	18.9	0.50	2.60	5.50	<2.0	210.0	3100.0
	1st Quarter 2006	Week of 3/05/06	15.0	8.04	0.30	1534.0	20.7	0.10	22.00	321.00	12.0	2100.0	8500.0
	Pre-Dewater	Week of 1/09/06	9.4	5.14	0.00	1401.0	15.0	1.30	5.80	47.00	3.5	320.0	2800.0
TP - #2	4th Quarter 2008	Week of 11/10/08	5.8	6.72	6.00	19.5	20.9	0.00	<0.10	<0.10	0.14	1.7	78.0
	3rd Quarter 2008	Week of 7/14/08	12.9	7.06	5.00	71.7	20.9	0.10	<0.50	0.78	1.2	47.0	410.0
	2nd Quarter 2008	Week of 5/12/08	10.0	5.52	1.20	30.3	20.9	0.10	2.80	<1.0	7.1	34.0	310.0
	1st Quarter 2008	Week of 03/10/08	9.7	5.3	1.20	12.5	20.9	0.00	0.57	<0.10	0.36	1.1	18.0
	4th Quarter 2007	Week of 10/29/07	12.5	6.86	0.00	0.7	19.7	0.00	<0.10	<0.10	<0.10	<0.10	<5.0
	3rd Quarter 2007	Week of 8/20/07	14.1	7.73	0.00	13.0	19.9	0.00	<0.10	<0.10	<0.10	<0.10	<5.0
	2nd Quarter 2007	Week of 6/18/07	13.7	7.5	0.10	112.0	20.1	0.10	<0.10	<0.10	<0.10	1.4	10.0
	1st Quarter 2007	Week of 2/26/07	16.2	8.86	0.10	8.8	20.6	0.10	<0.10	<0.10	1.1	17.0	88.0
	4th Quarter 2006	Week of 12/04/06	16.5	9.03	0.08	67.0	20.9	0.00	0.11	<0.10	1.6	18.0	120.0
	3rd Quarter 2006	Week of 9/11/06	13.4	7.37	0.01	5.4	20.9	0.00	<0.10	<0.10	<0.10	<0.10	<5.0
	2nd Quarter 2006	Week of 6/17/06	15.1	8.27	0.15	23.8	20.9	0.00	0.21	0.23	0.12	2.8	25.0
	1st Quarter 2006	Week of 3/05/06	18.0	9.83	0.05	92.7	20.9	0.00	0.36	1.80	1.4	17.0	150.0
	Pre-Dewater	Week of 1/09/06	12.0	6.62	0.00	1589.0	4.0	6.40	7.80	11.00	8.0	88.0	1100.0

NR = Not Required

NM = Not Measured

RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
# 1	4th Quarter 2008	Week of 11/10/08	10.0	6.8	0.00	0.5	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	13.1	7.15	0.00	0.8	20.9	0.00	<0.10	<0.10	<0.10	0.55	5.6
	2nd Quarter 2008	Week of 5/12/08	11.0	5.86	0.00	0.8	20.9	0.00	<0.10	<0.10	0.15	0.52	<5.0
	1st Quarter 2008	Week of 03/10/08	9.0	5.17	0.00	2.1	20.9	0.00	<0.10	<0.10	<0.10	0.42	<5.0
	4th Quarter 2007	Week of 10/29/07	12.7	6.94	0.00	0.4	19.2	0.30	<0.10	<0.10	<0.10	<0.1	<5.0
	3rd Quarter 2007	Week of 8/20/07	13.9	7.62	0.00	16.0	19.6	0.10	<0.10	<0.10	<0.10	1.3	19.0
	2nd Quarter 2007	Week of 6/18/07	12.8	7.02	0.00	19.0	20.5	0.10	<0.10	<0.10	<0.10	1.0	7.6
	1st Quarter 2007	Week of 2/26/07	13.7	7.52	0.00	5.2	20.4	0.10	<0.10	<0.10	0.11	1.2	13.0
	4th Quarter 2006	Week of 12/04/06	14.0	7.77	0.00	1.3	19.7	0.50	<0.10	<0.10	<0.10	<0.3	<5.0
	3rd Quarter 2006	Week of 9/11/06	13.5	7.41	0.00	6.6	20.9	0.10	<0.10	<0.10	<0.10	<0.1	<5.0
	2nd Quarter 2006	Week of 6/17/06	13.2	7.23	0.00	2.9	20.9	1.00	<0.10	<0.10	<0.10	<0.3	<5.0
	1st Quarter 2006	Week of 3/06/06	15.0	8.09	0.00	179.8	18.6	0.60	0.55	2.20	0.53	23.0	1300.0
	Pre-Dewater	Week of 1/09/06	11.8	6.44	0.00	NM	17.80	0.00	<0.05	<0.05	<0.05	0.093	<5.0
# 2	4th Quarter 2008	Week of 11/10/08	7.8	4.54	0.30	86.6	20.9	0.00	<0.50	<0.50	12.0	45.0	190.0
	3rd Quarter 2008	Week of 7/14/08	8.7	4.76	0.40	2.3	18.7	1.40	<0.10	0.12	0.45	2.9	9.8
	2nd Quarter 2008	Week of 5/12/08	6.3	3.43	0.00	2.5	20.9	0.00	0.11	<0.10	1.6	8.8	31.0
	1st Quarter 2008	Week of 03/10/08	5.7	3.15	0.00	115.0	20.9	0.00	<0.10	<0.10	2.6	12.0	55.0
	4th Quarter 2007	Week of 10/29/07	8.7	4.78	0.00	54.1	19.3	0.30	<0.10	<0.10	9.80	46.0	180.0
	3rd Quarter 2007	Week of 8/20/07	12.7	6.97	0.00	9890.0	16.9	2.60	<0.10	<0.10	<0.10	910.0	13000.0
	2nd Quarter 2007	Week of 6/18/07	12.1	6.62	0.00	1100.0	18.6	1.90	<5.00	<5.00	<5.00	1500.0	9000.0
	1st Quarter 2007	Week of 2/26/07	10.2	5.59	0.00	1288.0	19.8	0.60	<5.00	9.80	23.00	1000.0	6100.0
	4th Quarter 2006	Week of 12/04/06	11.0	5.95	0.00	1805.0	19.3	0.90	6.10	15.00	14.00	1400.0	8900.0
	3rd Quarter 2006	Week of 9/11/06	9.7	5.32	0.00	137.0	18.6	1.40	<2.5	<2.5	79.00	380.0	1200.0
	2nd Quarter 2006	Week of 6/17/06	9.6	5.24	0.00	953.0	18.6	1.40	<10	15.00	11.00	130.0	1800.0
	1st Quarter 2006	Week of 3/06/06	14.0	7.81	0.01	1534.0	19.7	0.10	69.00	310.00	55.00	2000.0	34000.0
	Pre-Dewater	Week of 1/09/06	8.6	4.70	0.00	103.5	16.0	1.10	0.13	54.00	0.25	38.0	150.0

NM = Not Measured

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RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
TP - #6	4th Quarter 2008	Week of 11/10/08	8.3	5.4	0.00	2.6	20.9	0.00	<0.10	<0.10	0.41	0.35	9.2
	3rd Quarter 2008	Week of 7/14/08	10.4	5.67	0.20	4.5	20.9	0.00	<0.10	0.13	<0.10	3.8	26.0
	2nd Quarter 2008	Week of 5/12/08	7.9	4.33	0.00	2.3	20.9	0.00	0.17	<0.10	0.34	1.1	7.6
	1st Quarter 2008	Week of 03/10/08	7.0	4.02	0.00	16.6	20.9	0.00	<0.10	<0.10	0.49	1.3	9.8
	4th Quarter 2007	Week of 10/29/07	10.4	5.7	0.00	3.6	19.4	0.20	<0.10	<0.10	0.39	2.3	6.6
	3rd Quarter 2007	Week of 8/20/07	14.0	7.65	0.00	14.0	19.1	0.60	<0.10	<0.10	<0.10	0.44	<5.0
	2nd Quarter 2007	Week of 6/18/07	13.4	7.32	0.00	25.0	19.2	0.70	<0.10	<0.10	<0.10	<0.10	<5.0
	1st Quarter 2007	Week of 2/26/07	6.39	6.39	0.00	29.5	20.2	0.30	<0.20	<0.20	1.00	13.0	98.0
	4th Quarter 2006	Week of 12/04/06	12.0	6.61	0.00	160.0	19.4	0.60	<0.50	<0.50	2.30	37.0	320.0
	3rd Quarter 2006	Week of 9/11/06	11.3	6.17	0.00	8.1	26.0	0.60	<0.10	<0.10	0.18	1.0	17.0
	2nd Quarter 2006	Week of 6/17/06	11.3	6.18	0.00	56.9	20.6	0.50	<0.10	0.18	<0.10	3.1	100.0
	1st Quarter 2006	Week of 3/06/06	16.0	8.61	0.00	1534.0	20.0	0.30	7.60	47.00	6.50	950.0	4500.0
TP - #7	Pre-Dewater	Week of 1/09/06	10.4	5.63	0.00	350.0	16.5	1.40	2.70	41.00	0.36	210.0	570.0
	4th Quarter 2008	Week of 11/10/08	8.0	5.35	0.00	1.3	20.9	0.20	<0.10	<0.10	<0.10	<0.30	6.4
	3rd Quarter 2008	Week of 7/14/08	9.9	5.43	0.00	7.1	20.9	0.40	<0.10	0.12	<0.10	2.0	17.0
	2nd Quarter 2008	Week of 5/12/08	7.6	4.17	0.00	3.6	20.9	0.00	<0.10	<0.10	0.38	1.5	6.2
	1st Quarter 2008	Week of 03/10/08	6.7	3.63	0.00	9.1	20.9	0.00	0.13	0.10	0.44	2.6	47.0
	4th Quarter 2007	Week of 10/29/07	9.9	5.42	0.00	7.4	19.2	0.70	<0.10	<0.10	<0.10	0.85	9.4
	3rd Quarter 2007	Week of 8/20/07	11.3	6.2	0.00	38.0	19.8	0.10	<0.10	<0.10	<0.10	<0.3	<5.0
	2nd Quarter 2007	Week of 6/18/07	9.9	5.4	0.00	35.0	20.6	0.00	<0.10	<0.10	<0.10	1.0	7.0
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	4th Quarter 2006	Week of 12/04/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	3rd Quarter 2006	Week of 9/11/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2nd Quarter 2006	Week of 6/17/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	1st Quarter 2006	Week of 3/06/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Pre-Dewater	Week of 1/09/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NR = Not Required

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RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
TP #1	4th Quarter 2008	Week of 11/10/08	10.2	5.35	4.10	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	7.0
	3rd Quarter 2008	Week of 7/14/08	10.8	5.88	6.50	0.7	20.9	0.00	<0.10	0.12	0.1	2.0	17.0
	2nd Quarter 2008	Week of 5/12/08	8.1	4.44	0.00	0.9	20.9	0.00	<0.10	<0.10	0.48	2.0	22.0
	1st Quarter 2008	Week of 03/10/08	7.5	4.13	0.00	19.1	20.9	0.00	<0.10	<0.10	0.23	1.2	5.0
	4th Quarter 2007	Week of 10/29/07	10.6	5.81	3.00	3.7	19.7	0.10	<0.10	<0.10	0.11	0.57	<5.0
	3rd Quarter 2007	Week of 8/20/07	12.2	6.67	0.00	91.0	19.7	0.10	<0.10	<0.10	<0.10	0.78	6.2
	2nd Quarter 2007	Week of 6/18/07	11.3	6.22	0.00	59.0	20.1	0.10	<0.10	<0.10	<0.10	<0.30	<5.0
	1st Quarter 2007	Week of 2/26/07	15.6	8.57	0.05	1775.0	20.4	0.30	<5.00	9.50	130.00	1400.0	7100.0
	4th Quarter 2006	Week of 12/04/06	15.0	8.21	0.02	555.0	20.5	0.40	<5.00	7.40	50.00	710.0	4700.0
	3rd Quarter 2006	Week of 9/11/06	11.3	6.21	0.01	11.2	20.9	0.00	<0.10	<0.10	0.13	0.43	14.0
	2nd Quarter 2006	Week of 6/17/06	13.7	7.5	0.01	1641.0	20.9	0.10	<2.00	6.60	2.20	460.0	3700.0
	1st Quarter 2006	Week of 3/06/06	16.0	8.92	0.05	1534.0	20.7	0.10	8.80	220.00	13.00	1900.0	7700.0
	Pre-Dewater	Week of 1/09/06	10.3	5.61	0.00	1589.0	4.6	8.90	6.90	31.00	2.90	300.0	1800.0
TP #9	4th Quarter 2008	Week of 11/10/08	10.4	5.29	0.00	3.2	20.9	0.00	<0.10	<0.10	0.21	1.00	10.0
	3rd Quarter 2008	Week of 7/14/08	9.9	5.4	0.00	0.2	20.9	0.00	<0.10	0.13	<0.10	<0.30	<5.0
	2nd Quarter 2008	Week of 5/12/08	7.4	4.03	0.00	4.4	20.9	0.00	<0.10	<0.10	0.55	2.1	8.8
	1st Quarter 2008	Week of 03/10/08	6.0	3.32	0.00	2.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	9.0	4.94	0.00	8.2	19.7	0.10	<0.10	<0.10	0.56	4.0	49.0
	3rd Quarter 2007	Week of 8/20/07	9.4	5.18	0.00	48.0	19.9	0.00	<0.10	<0.10	<0.10	2.8	65.0
	2nd Quarter 2007	Week of 6/18/07	8.6	4.73	0.00	24.0	20.6	0.10	<0.10	<0.10	<0.10	0.93	6.6
	1st Quarter 2007	Week of 2/26/07	9.2	5.07	0.00	95.1	20.6	0.20	<0.10	0.15	4.30	41.0	290.0
	4th Quarter 2006	Week of 12/04/06	10.0	5.39	0.00	9.6	20.9	0.10	<0.10	<0.10	0.16	3.5	20.0
	3rd Quarter 2006	Week of 9/11/06	10.0	5.48	0.00	18.3	20.3	0.30	<0.10	0.21	0.18	2.5	140.0
	2nd Quarter 2006	Week of 6/17/06	9.0	5.26	0.00	13.9	20.9	0.00	<0.10	<0.10	0.10	0.62	31.0
	1st Quarter 2006	Week of 3/06/06	10.0	5.21	0.00	7.7	20.6	0.10	<0.05	0.09	0.06	0.53	8.0
	Pre-Dewater	Week of 1/09/06	11.3	5.08	0.00	8.5	17.2	0.20	<0.05	0.05	0.18	0.35	31.0

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RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
TP - #10	4th Quarter 2008	Week of 11/10/08	8.6	5.23	0.00	0.3	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	8.9	4.88	0.00	3.2	20.9	0.00	<0.10	<0.10	<0.10	0.75	7.6
	2nd Quarter 2008	Week of 5/12/08	6.9	3.78	0.00	2.8	20.9	0.00	<0.10	<0.10	0.27	0.82	<5.0
	1st Quarter 2008	Week of 03/10/08	5.0	2.83	0.00	2.4	20.9	0.00	<0.10	<0.10	0.16	0.82	<5.0
	4th Quarter 2007	Week of 10/29/07	8.7	4.74	0.00	0.5	19.4	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	9.7	5.32	0.00	42.0	19.7	0.00	<0.10	<0.10	<0.10	1.0	16.0
	2nd Quarter 2007	Week of 6/18/07	8.5	4.62	0.00	38.0	20.6	0.00	<0.10	<0.10	<0.10	1.0	11.0
	1st Quarter 2007	Week of 2/26/07	9.5	5.23	0.00	3.3	20.4	0.10	<0.10	<0.10	<0.10	0.94	6.0
	4th Quarter 2006	Week of 12/04/06	10.0	5.57	0.00	18.0	14.4	0.70	<0.10	<0.10	0.20	2.7	22.0
	3rd Quarter 2006	Week of 9/11/06	9.6	5.26	0.00	4.7	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	9.6	5.23	0.00	6.7	20.9	0.00	0.11	0.16	<0.10	0.57	14.0
	1st Quarter 2006	Week of 3/06/06	11.0	5.86	0.00	21.9	17.1	1.10	0.07	0.62	0.05	6.1	25.0
	Pre-Dewater	Week of 1/09/06	9.3	5.08	0.00	0.0	17.8	0.00	<0.05	<0.05	<0.05	0.28	<5.0
	4th Quarter 2008	Week of 11/10/08	6.1	4.64	0.00	0.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	10.0	5.47	0.00	2.2	20.9	0.00	<0.10	<0.10	<0.10	0.74	8.0
	2nd Quarter 2008	Week of 5/12/08	7.6	4.15	0.00	1.7	20.9	0.00	<0.10	<0.10	0.20	0.64	<5.0
TP - #11	1st Quarter 2008	Week of 03/10/08	6.0	3.43	0.00	0.9	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	9.5	5.18	0.00	0.6	19.4	0.00	<0.10	<0.10	<0.10	<0.3	<5.0
	3rd Quarter 2007	Week of 8/20/07	10.5	5.75	0.00	81.0	14.9	6.20	<0.10	<0.10	<0.10	1.4	39.0
	2nd Quarter 2007	Week of 6/18/07	9.5	5.17	0.00	45.0	20.6	0.00	<0.10	<0.10	<0.10	0.74	7.2
	1st Quarter 2007	Week of 2/26/07	10.4	5.69	0.00	5.9	19.0	1.00	<0.10	<0.10	0.11	1.4	11.0
	4th Quarter 2006	Week of 12/04/06	10.0	6.00	0.00	2.8	14.4	0.70	<0.10	<0.10	<0.10	<0.1	<5.0
	3rd Quarter 2006	Week of 9/11/06	10.3	5.69	0.00	2.8	19.1	1.40	<0.10	<0.10	0.24	1.5	9.0
	2nd Quarter 2006	Week of 6/17/06	10.3	5.61	0.00	2.6	18.8	1.40	<0.10	<0.10	<0.10	<0.3	<5.0
	1st Quarter 2006	Week of 3/06/06	11.0	6.31	0.00	13.2	20.0	0.40	0.06	0.32	0.053	3.3	13.0
	Pre-Dewater	Week of 1/09/06	10.2	5.55	0.00	0.0	17.5	0.30	<0.05	<0.05	<0.05	0.14	<5.0
	4th Quarter 2008	Week of 11/10/08	6.1	4.64	0.00	0.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	10.0	5.47	0.00	2.2	20.9	0.00	<0.10	<0.10	<0.10	0.74	8.0
	2nd Quarter 2008	Week of 5/12/08	7.6	4.15	0.00	1.7	20.9	0.00	<0.10	<0.10	0.20	0.64	<5.0
	1st Quarter 2008	Week of 03/10/08	6.0	3.43	0.00	0.9	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	9.5	5.18	0.00	0.6	19.4	0.00	<0.10	<0.10	<0.10	<0.3	<5.0
	3rd Quarter 2007	Week of 8/20/07	10.5	5.75	0.00	81.0	14.9	6.20	<0.10	<0.10	<0.10	1.4	39.0

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RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
TP - #12	4th Quarter 2008	Week of 11/10/08	12.3	5.09	0.00	0.2	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	13.1	7.18	0.00	3.6	20.9	0.00	<0.10	<0.10	<0.10	0.77	8.2
	2nd Quarter 2008	Week of 5/12/08	10.7	5.85	0.00	2.8	20.9	0.00	<0.10	<0.10	0.17	0.56	<5.0
	1st Quarter 2008	Week of 03/10/08	9.0	5.11	0.00	1.6	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	12.7	6.92	0.00	0.7	19.4	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	13.4	7.36	0.00	19.0	19.8	0.00	<0.10	<0.10	<0.10	1.0	14.0
	2nd Quarter 2007	Week of 6/18/07	12.5	6.82	0.00	26.0	20.6	0.10	<0.10	<0.10	<0.10	0.56	6.0
	1st Quarter 2007	Week of 2/26/07	13.5	7.4	0.00	18.10	20.4	0.20	<0.10	<0.10	1.10	11.0	61.0
	4th Quarter 2006	Week of 12/04/06	14.0	7.67	0.00	30.3	18.5	1.60	<0.20	<0.20	0.28	24.0	120.0
	3rd Quarter 2006	Week of 9/11/06	13.6	7.48	0.00	5.7	20.9	0.00	<0.10	<0.10	0.10	<0.3	<5.0
	2nd Quarter 2006	Week of 6/17/06	13.6	7.44	0.00	6.7	20.9	0.00	0.12	0.19	<0.10	0.52	17.0
	1st Quarter 2006	Week of 3/06/06	15.0	7.94	0.00	10.1	18.7	1.40	0.05	0.21	0.06	2.3	9.0
TP - #13	Pre-Dewater	Week of 1/09/06	13.5	7.38	0.00	0.2	17.8	0.00	<0.05	<0.05	<0.05	0.3	<5.0
	4th Quarter 2008	Week of 11/10/08	16.9	6.83	0.00	0.2	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	10.9	5.97	0.00	3.2	20.9	0.00	<0.10	<0.10	<0.10	1.40	11.0
	2nd Quarter 2008	Week of 5/12/08	8.6	4.69	0.00	1.5	20.9	0.00	<0.10	<0.10	0.17	0.54	<5.0
	1st Quarter 2008	Week of 03/10/08	7.0	3.92	0.00	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	10.0	5.8	0.00	0.7	19.4	0.10	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	11.0	6.1	0.00	128.0	19.8	0.00	<0.10	<0.10	<0.10	1.3	30.0
	2nd Quarter 2007	Week of 6/18/07	10.3	5.63	0.00	97.0	20.6	0.00	<0.10	<0.10	<0.10	0.60	5.8
	1st Quarter 2007	Week of 2/26/07	11.3	6.16	0.00	4.10	20.2	0.20	<0.10	<0.10	0.20	2.9	24.0
	4th Quarter 2006	Week of 12/04/06	11.9	6.51	0.00	13.8	18.5	1.10	<0.10	<0.10	0.18	2.4	18.0
	3rd Quarter 2006	Week of 9/11/06	11.6	6.33	0.00	1.8	18.6	6.90	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	11.6	6.35	0.00	19.5	18.1	1.00	0.11	0.48	0.11	2.4	27.0
TP - #13	1st Quarter 2006	Week of 3/06/06	12.0	6.78	0.00	12.6	19.1	1.00	0.05	0.17	0.09	1.6	8.6
	Pre-Dewater	Week of 1/09/06	11.4	6.24	0.00	0.1	17.8	0.00	<0.05	<0.05	<0.05	<0.05	<5.0

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RIVER TERRACE

Soil Gas Monitoring

Sample Location	Sampling Activities	DATE	Purge Volume (L)	Depth to Water (ft)	Pressure (Inches of Water)	PID (PPM)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylben (ug/L)	Xylene (ug/L)	GRO (ug/L)
DW #1	4th Quarter 2008	Week of 11/10/08	162.0	5.72	0.00	0.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	96.8	5.89	0.00	0.2	20.7	0.60	<0.10	0.11	<0.10	<0.30	<5.0
	2nd Quarter 2008	Week of 5/12/08	76.7	4.66	0.00	0.9	20.9	0.00	<0.10	<0.10	0.12	0.42	<5.0
	1st Quarter 2008	Week of 03/10/08	68.0	4.11	0.00	2.0	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	95.0	5.8	0.00	0.7	19.3	0.20	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	110.0	6.71	0.00	27.0	18.6	1.10	<0.10	<0.10	<0.10	0.48	9.0
	2nd Quarter 2007	Week of 6/18/07	95.6	5.81	0.00	9.0	18.6	1.80	<0.10	<0.10	<0.10	0.32	<5.0
	1st Quarter 2007	Week of 2/26/07	100.5	6.11	0.00	1.00	19.8	0.50	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2006	Week of 12/04/06	92.0	5.58	0.00	1.1	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2006	Week of 9/11/06	105.0	6.39	0.00	7.8	18.8	1.30	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	150.0	6.49	0.00	5.8	16.6	4.40	<0.10	<0.10	<0.10	0.33	8.6
	1st Quarter 2006	Week of 3/06/06	130.0	7.91	0.00	25.4	9.9	8.70	<0.05	0.61	0.17	5.2	61.0
	Pre-Dewater	Week of 1/09/06	113.0	6.9	0.00	0.0	12.7	7.40	0.09	0.14	0.59	1.2	35.0
MW #49	4th Quarter 2008	Week of 11/10/08	60.0	8.72	0.00	0.1	20.9	0.60	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	66.2	9.03	0.00	0.2	18.1	2.60	<0.10	0.11	<0.10	<0.30	<5.0
	2nd Quarter 2008	Week of 5/12/08	56.2	7.66	0.00	1.0	20.9	0.00	<0.10	<0.10	<0.10	<0.10	<5.0
	1st Quarter 2008	Week of 03/10/08	50.0	6.9	0.00	2.0	20.9	0.00	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2007	Week of 10/29/07	63.0	8.62	0.00	1.1	18.2	1.60	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	68.0	9.3	0.00	22.0	15.7	5.00	<0.10	<0.10	<0.10	0.39	<5.0
	2nd Quarter 2007	Week of 6/18/07	61.6	8.41	0.00	64.0	17.4	3.00	<0.10	<0.10	<0.10	<0.30	11.0
	1st Quarter 2007	Week of 2/26/07	64.4	8.79	0.00	1.60	19.8	0.60	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2006	Week of 12/04/06	67.0	9.16	0.00	2.1	19.0	1.00	<0.10	<0.10	<0.10	0.46	<5.0
	3rd Quarter 2006	Week of 9/11/06	68.0	9.38	0.00	3.5	17.7	2.80	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	73.0	9.98	0.00	16.1	16.8	2.70	<0.10	<0.10	<0.10	1.4	35.0
	1st Quarter 2006	Week of 3/06/06	74.0	10.07	0.00	20.3	19.2	1.00	<0.05	1.00	0.06	8.9	28.0
	Pre-Dewater	Week of 1/09/06	71.1	9.69	0.00	0.0	17.1	1.00	<0.05	<0.05	0.08	0.34	<5.0

NR = Not Required

NM = Not Measured

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B				EPA Method 8015B	
											MCL	WQC 20NMAC	MCL	WQC 20NMAC	TPH Screening Guidelines Table 2a	
TP #1	4th Quarter 2008	Week of 11/10/08	4.85	NPP	9.38	3050	6.81	61.1	0.56	241		0.005	0.7	0.82	1.72	
	3rd Quarter 2008	Week of 7/14/08	5.37	NPP	9.38	4037	6.96	68.6	6.94	123		1.20	3.30	16.00	17.00	51.00
	2nd Quarter 2008	Week of 5/12/08	3.97	NPP	9.38	3572	6.83	58.6	1.40	282		1.80	3.00	13.00	2.00	59.00
	1st Quarter 2008	Week of 03/10/08	3.63	NPP	9.38	3533	6.96	49.4	4.55	210		2.80	3.00	20.00	2.40	54.00
	4th Quarter 2007	Week of 10/29/07	5.29	NPP	9.38	4123	6.78	63.4	0.49	223		2.10	3.00	18.00	1.80	62.00
	3rd Quarter 2007	Week of 8/20/07	6.24	NPP	9.38	4661	6.93	74.4	4.19	237		1.50	3.80	20.00	3.30	64.00
	2nd Quarter 2007	Week of 6/18/07	5.87	NPP	9.38	4907	6.93	65.9	0.31	185		1.20	4.00	19.00	2.50	80.00
	1st Quarter 2007	Week of 2/26/07	7.79	NPP	9.38	3825	6.82	50.3	0.65	134		1.90	6.50	32.00	3.00	70.00
	4th Quarter 2006	Week of 12/04/06	7.42	NPP	9.38	3631	6.99	57.3	NM	96		2.00	3.20	20.00	3.30	160.00
	3rd Quarter 2006	Week of 9/11/06	5.88	NPP	9.38	3053	7.00	72.8	0.71	-50		1.80	3.80	20.00	3.50	95.00
	2nd Quarter 2006	Week of 6/17/06	6.80	NPP	9.38	2372	6.96	67.3	0.56	-15		3.20	3.30	18.00	4.30	98.00
	1st Quarter 2006	Week of 3/06/06	8.04	NPP	9.38	2233	7.04	52.0	0.83	186		2.60	4.10	30.00	3.30	40.00
TP #2	Baseline	Week of 8/15/05	5.35	NPP	9.38	2034	6.92	70.6	NR	NR		1.50	3.80	23.00	1.90	72.00
	4th Quarter 2008	Week of 11/10/08	6.72	NPP	9.92	2619	6.89	59.9	3.58	174		1.40	0.05	0.05	0.05	66.00
	3rd Quarter 2008	Week of 7/14/08	7.06	NPP	9.92	3363	6.98	66.4	3.48	162		0.31	0.73	0.93	7.50	5.80
	2nd Quarter 2008	Week of 5/12/08	5.52	NPP	9.92	2684	6.85	56.7	0.44	118		0.80	3.90	3.40	1.40	19.00
	1st Quarter 2008	Week of 03/10/08	5.30	NPP	9.92	2748	7.00	51.3	1.89	171		1.10	2.20	4.00	1.30	19.00
	4th Quarter 2007	Week of 10/29/07	6.86	NPP	9.92	3507	6.96	62.4	0.85	217		1.20	2.30	4.20	1.70	18.00
	3rd Quarter 2007	Week of 8/20/07	7.73	NPP	9.92	3771	6.97	71.0	1.78	217		1.50	2.40	3.70	1.40	22.00
	2nd Quarter 2007	Week of 6/18/07	7.50	NPP	9.92	2576	6.87	67.5	0.70	191		0.64	2.00	4.80	1.00	28.00
	1st Quarter 2007	Week of 2/26/07	8.86	NPP	9.92	3783	6.82	51.4	1.45	171		1.40	3.80	15.00	<1.00	47.00
	4th Quarter 2006	Week of 12/04/06	9.03	NPP	9.92	3548	6.92	53.5	2.14	177		4.30	4.30	19.00	2.10	94.00
	3rd Quarter 2006	Week of 9/11/06	7.37	NPP	9.92	2531	7.03	67.4	0.65	-13		1.70	2.40	12.00	1.50	41.00
	2nd Quarter 2006	Week of 6/17/06	8.27	NPP	9.92	3586	6.93	62.8	0.94	-216		3.50	2.80	15.00	1.30	77.00
	1st Quarter 2006	Week of 3/06/06	9.83	NPP	9.92	1802	7.08	53.2	9.48	184		3.60	2.40	14.00	<0.12	42.00
	Baseline	Week of 8/15/05	6.84	NPP	9.92	2225	6.85	65.2	NR	NR		6.20	0.51	5.00	<0.12	27.00
												6.10	4.20	25.00	<0.05	84.00

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B					EPA Method 8015B	
											MCL	WGCC 20M/MAC	MCL	WGCC 20M/MAC	TPH Screening Guidelines Table 2a	DRO (mg/L)	GRO (mg/L)
TP #3	4th Quarter 2008	Week of 11/10/08	6.80	NPP	12.35	1096	6.90	60.1	1.75	216	0.005	0.75	0.7	0.62	1.72	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	7.15	NPP	12.35	867	6.99	64.5	1.56	240	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	2nd Quarter 2008	Week of 5/12/08	5.86	NPP	12.35	775	6.86	55.7	3.95	122	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	1st Quarter 2008	Week of 03/10/08	5.17	NPP	12.35	602	6.89	48.5	2.87	223	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	4th Quarter 2007	Week of 10/29/07	6.94	NPP	12.35	806	6.87	62.3	3.40	254	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	3rd Quarter 2007	Week of 8/20/07	7.62	NPP	12.35	815	6.97	66.2	2.67	246	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	2nd Quarter 2007	Week of 6/18/07	7.02	NPP	12.35	560	6.85	60.8	3.12	211	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	1st Quarter 2007	Week of 2/26/07	7.52	NPP	12.35	839	6.89	47.0	1.65	248	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<0.05
	4th Quarter 2006	Week of 12/04/06	7.77	NPP	12.35	673	7.06	54.8	1.32	242	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<0.05
	3rd Quarter 2006	Week of 9/11/06	7.41	NPP	12.35	779	6.99	68.0	0.33	233	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<0.05
	2nd Quarter 2006	Week of 6/17/06	7.23	NPP	12.35	856	6.99	62.1	0.98	179	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<0.05
	1st Quarter 2006	Week of 3/06/06	8.09	NPP	12.35	1050	6.94	47.9	0.21	256	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<0.05
TP #5	Baseline	Week of 8/15/05	6.61	NPP	12.35	1295	6.85	68.4	NR	NR	<0.005	<0.005	<0.005	0.0012	<1.00	<0.05	<0.05
	4th Quarter 2008	Week of 11/10/08	4.54	NPP	8.84	981	6.83	61.8	1.23	129	0.02	0.01	2.40	12.00	6.50	38.00	38.00
	3rd Quarter 2008	Week of 7/14/08	4.76	NPP	8.84	852	6.95	69.8	1.49	159	<0.02	<0.02	1.90	18.00	1.10	50.00	50.00
	2nd Quarter 2008	Week of 5/12/08	3.43	NPP	8.84	702	6.87	56.8	1.32	54	0.05	<0.02	1.10	13.00	<1.0	46.00	46.00
	1st Quarter 2008	Week of 03/10/08	3.15	NPP	8.84	656	6.82	47.4	2.34	216	<0.020	<0.020	1.60	17.00	<1.00	52.00	52.00
	4th Quarter 2007	Week of 10/29/07	4.78	NPP	8.84	857	7.04	66.5	0.23	229	<0.001	<0.001	2.60	17.00	1.20	56.00	56.00
	3rd Quarter 2007	Week of 8/20/07	6.97	NPP	8.84	911	6.88	69.8	0.17	129	0.30	<0.10	3.00	22.00	<1.00	69.00	69.00
	2nd Quarter 2007	Week of 6/18/07	6.62	NPP	8.84	884	6.87	63.9	0.80	148	0.34	<0.10	3.50	21.00	<1.00	78.00	78.00
	1st Quarter 2007	Week of 2/26/07	5.59	NPP	8.84	1027	6.87	49.6	0.79	219	<0.01	<0.01	1.30	18.00	<1.00	85.00	85.00
	4th Quarter 2006	Week of 12/04/06	5.95	NPP	8.84	1377	6.99	56.0	1.36	229	0.07	<0.050	1.20	10.00	<1.00	50.00	50.00
	3rd Quarter 2006	Week of 9/11/06	5.32	NPP	8.84	879	7.09	71.0	0.29	149	<0.01	<0.01	3.10	15.00	<0.025	110.00	110.00
	2nd Quarter 2006	Week of 6/17/06	5.24	NPP	8.84	989	6.94	65.3	0.05	39	0.05	<0.001	1.60	16.00	<0.025	34.00	34.00
	1st Quarter 2006	Week of 3/06/06	7.81	NPP	8.84	747	7.03	54.1	0.52	-51	0.20	<0.02	0.28	20.00	<0.05	59.00	59.00
	Baseline	Week of 8/15/05	5.91	NPP	8.84	923	6.90	68.7	NR	NR	0.35	<0.005	3.50	21.00	<0.05	56.00	56.00

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B					EPA Method 8015B	
											MCL	WGCC 20NMAC	MCL	WGCC 20NMAC	MTBE (mg/L)	DRO (mg/L)	TPH Screening Guidelines Table 2a
TP #	4th Quarter 2008	Week of 11/10/08	5.40	NPP	9.94	1293	7.07	61.0	0.58	199	0.005	0.75	0.7	0.82	<0.013	3.10	3.40
	3rd Quarter 2008	Week of 7/14/08	5.67	NPP	9.94	726	7.00	66.3	0.53	70	<0.005	<0.005	0.800	2.70	<0.012	<1.00	8.60
	2nd Quarter 2008	Week of 5/12/08	4.33	NPP	9.94	997	6.87	58.0	0.77	181	0.020	<0.001	0.180	0.07	<0.0025	<1.00	1.20
	1st Quarter 2008	Week of 03/10/08	4.02	NPP	9.94	1093	6.93	49.9	1.62	176	0.024	<0.001	0.260	0.30	0.0029	<1.00	1.90
	4th Quarter 2007	Week of 10/29/07	5.70	NPP	9.94	1502	6.93	63.3	0.53	177	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.07
	3rd Quarter 2007	Week of 8/20/07	7.65	NPP	9.94	1317	6.89	69.0	0.38	145	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.19
	2nd Quarter 2007	Week of 6/18/07	7.32	NPP	9.94	1361	6.89	62.2	1.19	220	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.11
	1st Quarter 2007	Week of 2/26/07	6.39	NPP	9.94	1857	6.83	47.5	0.72	253	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.28
	4th Quarter 2006	Week of 12/04/06	6.61	NPP	9.94	1826	6.95	54.8	1.03	226	0.01	<0.001	<0.001	<0.003	<0.0025	<1.00	0.48
	3rd Quarter 2006	Week of 9/11/06	6.17	NPP	9.94	2898	7.02	69.4	0.76	45	0.03	<0.01	0.41	0.05	<0.025	<1.00	5.30
	2nd Quarter 2006	Week of 6/17/06	6.18	NPP	9.94	1216	6.98	66.5	0.38	94	<0.001	<0.001	4.40	0.35	<0.025	<1.00	1.90
	1st Quarter 2006	Week of 3/06/06	8.61	NPP	9.94	602	7.35	52.3	0.63	153	<0.001	<0.001	0.18	0.75	<0.025	<1.00	2.70
	Baseline	Week of 8/15/05	5.78	NPP	9.94	1128	6.94	68.2	NR	NR	0.28	<0.01	2.80	7.50	<0.05	1.00	26.00
TP #7	4th Quarter 2008	Week of 11/10/08	5.35	NPP	9.72	751	7.04	58.1	1.64	221	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	5.43	NPP	9.72	778	6.93	68.0	0.74	229	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2008	Week of 5/12/08	4.17	NPP	9.72	1850	6.89	55.1	1.29	179	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2008	Week of 03/10/08	3.63	NPP	9.72	2022	6.97	45.8	4.67	244	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2007	Week of 10/29/07	5.42	NPP	9.72	1066	6.89	59.7	1.10	253	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2007	Week of 8/20/07	6.20	NPP	9.72	2267	7.09	67.6	1.01	245	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2007	Week of 6/18/07	5.40	NPP	9.72	2795	6.83	59.2	0.39	222	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	4th Quarter 2006	Week of 12/04/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	3rd Quarter 2006	Week of 9/11/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	2nd Quarter 2006	Week of 6/17/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	1st Quarter 2006	Week of 3/06/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
	Baseline	Week of 8/15/05	5.72	NPP	9.72	1740	6.89	68	NR	NR	<0.0005	<0.0005	0.00065	0.0049	<0.0025	<1.00	<0.05

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B				EPA Method 8015B	
											MCL	WGCC 20NMAC	MGL	WGCC 20NMAC	TPH Screening Guidelines Table 2a	
WS 11	4th Quarter 2008	Week of 11/10/08	5.29	NPP	9.72	1810	6.96	60.4	4.70	230	0.005	Benzene (mg/L)	Toluene (mg/L)	Ethylben (mg/L)	Xylene (mg/L)	MTBE (mg/L)
	3rd Quarter 2008	Week of 7/14/08	5.88	NPP	9.72	1627	6.96	68.9	0.49	264	<0.005	<0.01	<0.01	0.34	2.40	<0.025
	2nd Quarter 2008	Week of 5/12/08	4.44	NPP	9.72	1863	6.91	56.6	1.39	175	<0.01	<0.01	0.39	2.40	<0.025	1.10
	1st Quarter 2008	Week of 03/10/08	4.13	NPP	9.72	1877	6.90	49.0	1.69	214	<0.01	<0.01	0.37	1.80	<0.025	1.40
	4th Quarter 2007	Week of 10/29/07	5.81	NPP	9.72	2555	6.88	64.1	0.77	185	<0.01	<0.01	0.38	1.50	<0.025	1.60
	3rd Quarter 2007	Week of 8/20/07	6.67	NPP	9.72	3084	6.89	74.4	0.36	245	<0.01	<0.01	0.48	3.70	<0.025	1.70
	2nd Quarter 2007	Week of 6/18/07	6.22	NPP	9.72	2704	6.92	66.3	1.21	160	<0.01	<0.01	0.29	8.60	<0.025	1.20
	1st Quarter 2007	Week of 2/26/07	8.57	NPP	9.72	2964	6.95	50.5	2.45	208	<0.01	<0.01	1.30	13.00	<0.025	2.10
	4th Quarter 2006	Week of 12/04/06	8.21	NPP	9.72	1855	7.04	57.3	1.56	187	0.04	<0.010	1.30	12.00	<0.025	1.40
	3rd Quarter 2006	Week of 9/11/06	6.21	NPP	9.72	2977	7.03	74.6	0.43	107	<0.01	<0.010	0.58	1.60	<0.025	5.60
	2nd Quarter 2006	Week of 6/17/06	7.50	NPP	9.72	2032	7.01	67.6	0.48	143	0.26	<0.100	0.64	6.30	<0.025	6.80
	1st Quarter 2006	Week of 3/06/06	8.92	NPP	9.72	1613	7.03	52.6	0.61	228	0.35	<0.10	1.10	10.00	<0.025	18.00
	Baseline	Week of 8/15/05	6.61	NPP	9.72	1934	6.94	72.4	NR	NR	1.10	<0.05	3.20	25.00	<0.25	7.80
WS 12	4th Quarter 2008	Week of 11/10/08	5.23	NPP	10.97	2074	6.87	57.9	3.72	119	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	3rd Quarter 2008	Week of 7/14/08	5.40	NPP	10.97	1712	6.95	61.6	0.78	216	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	2nd Quarter 2008	Week of 5/12/08	4.03	NPP	10.97	1471	6.87	51.8	1.98	147	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	1st Quarter 2008	Week of 03/10/08	3.32	NPP	10.97	1559	6.89	45.3	1.66	245	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	4th Quarter 2007	Week of 10/29/07	4.94	NPP	10.97	875	6.98	61.7	0.41	218	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	3rd Quarter 2007	Week of 8/20/07	5.18	NPP	10.97	1342	7.11	67.5	1.15	136	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	2nd Quarter 2007	Week of 6/18/07	4.73	NPP	10.97	2035	6.90	58.5	0.31	224	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	1st Quarter 2007	Week of 2/26/07	5.07	NPP	10.97	2379	6.85	46.1	0.85	173	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00
	4th Quarter 2006	Week of 12/04/06	5.39	NPP	10.97	2149	7.06	51.9	1.37	254	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00
	3rd Quarter 2006	Week of 9/11/06	5.48	NPP	10.97	1809	7.04	64.8	1.09	219	<0.001	<0.001	0.001	<0.003	<0.0025	<1.00
	2nd Quarter 2006	Week of 6/17/06	5.26	NPP	10.97	1883	7.02	60.6	0.39	169	<0.001	<0.001	0.001	<0.003	<0.0025	<1.00
	1st Quarter 2006	Week of 3/06/06	5.21	NPP	10.97	1944	7.02	47.8	0.75	214	<0.001	<0.001	<0.003	<0.003	<0.0025	<1.00
	Baseline	Week of 8/15/05	5.12	NPP	10.97	1968	6.92	62.8	NR	NR	<0.005	<0.001	<0.003	0.02	0.027	<1.00

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B				EPA Method 8015B		
											MCL	WQCC 20NMAC	MCL	WQCC 20NMAC	TPH Screening Guidelines Table 2a	GRO (mg/L)	DRO (mg/L)
TP #10	4th Quarter 2008	Week of 11/10/08	4.64	NPP	9.95	343	7.06	50.7	1.48	198	0.005	0.75	0.7	0.62	172		
	3rd Quarter 2008	Week of 7/14/08	4.88	NPP	9.95	405	7.11	66.5	1.13	212	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	2nd Quarter 2008	Week of 5/12/08	3.78	NPP	9.95	479	6.88	53.7	0.77	107	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05	<1.0
	1st Quarter 2008	Week of 03/10/08	2.83	NPP	9.95	279	6.94	43.5	2.52	213	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	4th Quarter 2007	Week of 10/29/07	4.74	NPP	9.95	307	6.90	51.3	2.28	253	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	3rd Quarter 2007	Week of 8/20/07	5.32	NPP	9.95	368	6.98	61.8	1.16	230	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	2nd Quarter 2007	Week of 6/18/07	4.62	NPP	9.95	268	6.86	57.2	7.32	213	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	1st Quarter 2007	Week of 2/26/07	5.23	NPP	9.95	426	6.85	41.1	3.87	233	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	4th Quarter 2006	Week of 12/04/06	5.57	NPP	9.95	387	7.00	44.9	1.44	269	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	3rd Quarter 2006	Week of 9/11/06	5.26	NPP	9.95	395	6.97	62.6	0.45	247	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	2nd Quarter 2006	Week of 6/17/06	5.23	NPP	9.95	325	7.01	59.8	1.52	168	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	1st Quarter 2006	Week of 3/06/06	5.86	NPP	9.95	355	6.99	42.8	1.72	224	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
TP #11	Baseline	Week of 8/15/05	5.10	NPP	9.95	377	6.94	71.2	NR	NR	<0.0005	<0.0005	<0.0005	0.0025	<1.00	<0.05	<1.00
	4th Quarter 2008	Week of 11/10/08	5.09	NPP	9.98	745	6.95	58.4	0.89	203	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	3rd Quarter 2008	Week of 7/14/08	5.47	NPP	9.98	850	7.03	64.7	0.50	229	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	2nd Quarter 2008	Week of 5/12/08	4.15	NPP	9.98	640	6.87	52.9	0.78	148	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05	<1.0
	1st Quarter 2008	Week of 03/10/08	3.43	NPP	9.98	611	6.94	42.5	3.21	239	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05	<1.0
	4th Quarter 2007	Week of 10/29/07	5.18	NPP	9.98	541	6.93	56.6	0.59	242	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	3rd Quarter 2007	Week of 8/20/07	5.75	NPP	9.98	596	7.02	69.4	1.49	226	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	2nd Quarter 2007	Week of 6/18/07	5.17	NPP	9.98	378	6.84	62.5	1.69	217	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	1st Quarter 2007	Week of 2/26/07	5.69	NPP	9.98	540	6.87	44.2	1.45	262	<0.001	<0.001	<0.001	<0.002	<1.00	<0.05	<1.00
	4th Quarter 2006	Week of 12/04/06	6.00	NPP	9.98	738	7.07	52.8	0.97	257	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	3rd Quarter 2006	Week of 9/11/06	5.69	NPP	9.98	632	7.06	67.7	0.36	269	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	2nd Quarter 2006	Week of 6/17/06	5.61	NPP	9.98	551	6.98	62.6	1.11	177	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
TP #12	1st Quarter 2006	Week of 3/06/06	6.31	NPP	9.98	851	6.92	45.4	0.24	243	<0.001	<0.001	<0.001	<0.003	<1.00	<0.05	<1.00
	Baseline	Week of 8/15/05	5.67	NPP	9.98	794	6.93	68.2	NR	NR	<0.0005	<0.0005	<0.0005	0.0028	<1.00	<0.05	<1.00

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B				EPA Method 8015B		
											MCL	WQCC 20NMAC	MCL	WQCC 20NMAC	TPH Screening Guidelines Table 24		
TP #12	4th Quarter 2008	Week of 11/10/08	6.83	NPP	11.79	1059	6.87	53.8	1.10	279	<0.005	<0.005	<0.001	<0.001	<0.0025	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	7.18	NPP	11.79	526	6.97	58.9	0.46	250	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2008	Week of 5/12/08	5.85	NPP	11.79	771	6.85	53.9	0.77	142	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2008	Week of 3/10/08	5.11	NPP	11.79	1197	6.86	47.9	1.75	264	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2007	Week of 10/29/07	6.92	NPP	11.79	1745	6.85	54.3	0.56	271	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2007	Week of 8/20/07	6.36	NPP	11.79	2189	6.97	57.1	1.6	238	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2007	Week of 6/18/07	6.82	NPP	11.79	1750	6.81	56.7	2.04	242	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2007	Week of 2/26/07	7.40	NPP	11.79	952	6.92	48.2	1.73	205	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2006	Week of 12/04/06	7.67	NPP	11.79	855	6.99	52.8	3.11	252	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	3rd Quarter 2006	Week of 9/11/06	7.48	NPP	11.79	1875	6.98	60.0	0.91	237	<0.001	<0.001	<0.001	<0.003	0.0081	<1.00	<0.05
	2nd Quarter 2006	Week of 6/17/06	7.44	NPP	11.79	1171	7.00	55.9	0.26	157	<0.001	<0.001	<0.001	<0.003	0.0049	<1.00	<0.05
	1st Quarter 2006	Week of 3/06/06	7.94	NPP	11.79	1234	6.91	48.0	0.19	242	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
TP #13	Baseline	Week of 8/15/05	7.43	NPP	11.79	2143	6.88	64.1	NR	NR	<0.0005	<0.0005	<0.0005	0.0042	0.0028	1.00	<0.05
	4th Quarter 2008	Week of 11/10/08	5.72	NPP	16.09	422	6.96	57.2	1.21	228	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	5.97	NPP	16.09	584	7.02	56.7	0.53	240	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2008	Week of 5/12/08	4.69	NPP	16.09	500	6.88	52.8	0.77	122	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2008	Week of 3/10/08	3.92	NPP	16.09	478	6.89	45.6	4.58	257	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2007	Week of 10/29/07	5.80	NPP	16.09	342	6.99	58.6	0.74	237	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2007	Week of 8/20/07	6.17	NPP	16.09	472	7.04	58.3	1.29	220	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2007	Week of 6/18/07	5.63	NPP	16.09	563	6.86	56.3	1.43	207	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2007	Week of 2/26/07	6.16	NPP	16.09	449	6.97	46.7	1.86	236	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2006	Week of 12/04/06	6.51	NPP	16.09	515	7.08	53.9	0.97	251	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	3rd Quarter 2006	Week of 9/11/06	6.33	NPP	16.09	554	6.98	63.9	0.54	244	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	2nd Quarter 2006	Week of 6/17/06	6.35	NPP	16.09	526	7.02	58.6	0.28	240	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	1st Quarter 2006	Week of 3/06/06	6.78	NPP	16.09	508	6.90	46.3	0.28	242	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
	Baseline	Week of 8/15/05	6.27	NPP	16.09	1226	6.97	58.4	NR	NR	<0.0005	<0.0005	<0.0005	0.0037	<0.0025	<1.00	<0.05

River Terrace

Ground Water Monitoring

Field Measurements

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	E.C. (umhos/cm)	pH	TEMP (°F)	D.O. (mg/L)	ORP (mV)	EPA Method 8021B					EPA Method 8015B	
											MCL	WQCC 20NMAC	MCL	WQCC 20NMAC	WQCC	TPH Screening Guidelines Table 2a	
											0.005	0.75	0.7	0.62		1.72	
											Benzene (mg/L)	Toluene (mg/L)	Ethylben (mg/L)	Xylene (mg/L)	MTBE (mg/L)	DRO (mg/L)	GRO (mg/L)
DW #1	4th Quarter 2008	Week of 11/10/08	5.72	NPP	15.62	2462	6.76	59.4	2.06	159	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	5.89	NPP	15.62	2443	6.93	55.5	0.59	160	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2008	Week of 5/12/08	4.66	NPP	15.62	2568	6.87	54.7	2.98	204	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2008	Week of 03/10/08	4.11	NPP	15.62	2804	6.73	44.5	1.58	239	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	4th Quarter 2007	Week of 10/29/07	5.80	NPP	15.62	1990	6.88	62.9	0.62	294	<0.001	<0.001	<0.001	0.01	<0.0025	<1.00	0.06
	3rd Quarter 2007	Week of 8/20/07	6.71	NPP	15.62	1928	7.05	65.7	0.27	155	<0.001	<0.001	<0.001	0.01	<0.0025	<1.00	0.29
	2nd Quarter 2007	Week of 6/18/07	5.81	NPP	15.62	2548	6.75	58.6	4.59	257	<0.001	<0.001	<0.001	0.0026	<0.0025	<1.00	0.15
	1st Quarter 2007	Week of 2/26/07	6.11	NPP	15.62	3126	6.88	48.1	0.65	235	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.29
	4th Quarter 2006	Week of 12/04/06	5.58	NPP	15.62	2789	7.01	52.7	1.24	281	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	0.09
	3rd Quarter 2006	Week of 9/11/06	6.39	NPP	15.62	2067	7.04	66.2	0.30	258	<0.005	<0.005	<0.005	<0.015	<0.012	<1.00	1.20
	2nd Quarter 2006	Week of 6/17/06	6.49	NPP	15.62	2329	6.96	58.0	0.42	143	<0.001	<0.001	0.016	0.12	<0.0025	1.60	0.90
	1st Quarter 2006	Week of 3/06/06	7.91	NPP	15.62	2118	6.95	50.2	0.75	-84	<0.005	<0.005	0.041	0.23	<0.012	2.20	2.80
MW #49	Baseline	Week of 8/15/05	6.43	NPP	15.62	1226	6.97	58.4	NR	NR	<0.001	<0.001	<0.001	0.0031	<0.001	NR	NR
	4th Quarter 2008	Week of 11/10/08	8.72	NPP	16.48	2413	7.02	60.0	1.16	237	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	3rd Quarter 2008	Week of 7/14/08	9.03	NPP	16.48	2280	6.98	61.1	0.59	148	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.24
	2nd Quarter 2008	Week of 5/12/08	7.66	NPP	16.48	2831	6.92	52.8	2.61	187	0.0018	<0.001	<0.001	<0.002	<0.0025	<1.00	0.25
	1st Quarter 2008	Week of 03/10/08	6.95	NPP	16.48	3947	6.75	47.3	1.75	246	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.09
	4th Quarter 2007	Week of 10/29/07	8.62	NPP	16.48	2740	6.95	62.3	0.39	265	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.05
	3rd Quarter 2007	Week of 8/20/07	9.30	NPP	16.48	924	6.86	63.9	0.52	192	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	2nd Quarter 2007	Week of 6/18/07	8.41	NPP	16.48	1217	6.95	57.5	0.49	217	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	<0.05
	1st Quarter 2007	Week of 2/26/07	8.79	NPP	16.48	2568	6.90	48.4	0.73	265	<0.001	<0.001	<0.001	<0.002	<0.0025	<1.00	0.05
	4th Quarter 2006	Week of 12/04/06	9.16	NPP	16.48	2356	7.07	56.2	0.78	295	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	0.081
	3rd Quarter 2006	Week of 9/11/06	9.38	NPP	16.48	1736	7.04	64.4	0.89	234	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	0.23
	2nd Quarter 2006	Week of 6/17/06	9.98	NPP	16.48	701	7.01	57.9	0.26	181	<0.001	<0.001	<0.001	<0.003	<0.0025	<1.00	<0.05
Baseline	1st Quarter 2006	Week of 3/06/06	10.07	NPP	16.48	961	7.07	51.9	0.33	190	<0.001	<0.001	<0.001	0.0061	<0.0025	<1.00	0.074
	Baseline	Week of 8/15/05	9.57	NPP	16.48	2393	6.96	59.8	NR	NR	0.093	<0.002	0.015	0.0041	<0.002	NR	NR

NR = Not Required NPP = No Product Present

River Terrace

Groundwater Monitoring

Total Metals			WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
			1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
TP #1	4th Quarter 2008	Week of 11/10/08	NR	NR	0.042	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.085	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.044	<0.006	0.045	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.093	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.044	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.074	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.14	<0.006	0.240	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #2	4th Quarter 2008	Week of 11/10/08	NR	NR	0.012	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.035	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.13	<0.006	0.020	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.019	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.007	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.019	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.29	<0.006	0.067	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #3	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.089	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.010	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.2	0.008	0.007	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

EPA Method 6010 & 7470

NA = Not Analyzed
NR = Not Required

River Terrace

Groundwater Monitoring

Total Metals			WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
			1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
TP #5	4th Quarter 2008	Week of 11/10/08	NR	NR	0.029	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.043	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.31	<0.006	0.039	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.051	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.032	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.044	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.21	<0.006	0.09	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #6	4th Quarter 2008	Week of 11/10/08	NR	NR	0.018	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.051	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.15	<0.006	0.022	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.028	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.009	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.38	<0.006	0.03	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #7	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.032	<0.006	0.007	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.006	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.075	<0.006	<0.005	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

EPA Method 6010 & 7470

NA = Not Analyzed
NR = Not Required

River Terrace

Groundwater Monitoring

Total Metals			WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
			1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
TP #8	4th Quarter 2008	Week of 11/10/08	NR	NR	0.017	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.066	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.07	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.043	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.30	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.027	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.44	<0.006	0.054	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #9	4th Quarter 2008	Week of 11/10/08	NR	NR	0.008	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.007	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.11	<0.006	0.013	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.009	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.013	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.91	0.018	0.020	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #10	4th Quarter 2008	Week of 11/10/08	NR	NR	0.006	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.11	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.006	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.41	0.024	0.009	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

EPA Method 6010 & 7470

NA = Not Analyzed

NR = Not Required

River Terrace

Groundwater Monitoring

Total Metals			WGCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
			1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
TP #11	4th Quarter 2008	Week of 11/10/08	NR	NR	0.006	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.008	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.068	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.006	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.010	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.33	0.013	0.015	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #12	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.043	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	0.006	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	0.010	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.021	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.21	0.010	0.016	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR
TP #13	4th Quarter 2008	Week of 11/10/08	NR	NR	0.007	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.22	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.012	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.42	0.019	0.011	NR
	1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR

EPA Method 6010 & 7470

NA = Not Analyzed
NR = Not Required

River Terrace

Groundwater Monitoring

Total Metals			WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
			1.00	0.05	0.015	0.002
Sample Location	Sampling Event	DATE	Ba (mg/L)	Cr (mg/L)	Lead (mg/L)	Mercury (mg/L)
DW #1	4th Quarter 2008	Week of 11/10/08	NR	NR	<0.005	NA
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	<0.001
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.12	<0.006	<0.005	<0.001
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	<0.0002
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	<0.0002
	3rd Quarter 2007	Week of 8/20/07	NR	NR	0.009	<0.0002
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.93	<0.03	<0.025	<0.0002
	1st Quarter 2007	Week of 2/26/07	NR	<0.006	<0.005	0.002
MW #49	4th Quarter 2008	Week of 11/10/08	NR	NR	0.007	NR
	3rd Quarter 2008	Week of 7/14/08	NR	NR	<0.005	NR
	2nd Quarter 2008 (Annual)	Week of 5/12/08	0.066	<0.006	<0.005	NR
	1st Quarter 2008	Week of 03/10/08	NR	NR	<0.005	NR
	4th Quarter 2007	Week of 10/29/07	NR	NR	<0.005	NR
	3rd Quarter 2007	Week of 8/20/07	NR	NR	<0.005	NR
	2nd Quarter 2007 (Annual)	Week of 6/18/07	0.064	<0.006	<0.005	NR
	1st Quarter 2007	Week of 2/26/07	NR	<0.006	<0.005	NR

EPA Method 6010 & 7470

NA = Not Analyzed

NR = Not Required

River Terrace

BV Air Pressure 2008

Sample Location	Sampling Activities	Date	Time	Velocity (scfm)	Pressure (psi)
BV - 1	4th Quarter	11/11/2008	955	5.0	2.0
	3rd Quarter	7/16/2008	1035	5.0	1.7
	2nd Quarter	5/13/2008	1310	12.0	3.0
	1st Quarter	3/11/2008	1256	12.8	3.1
BV - 2	4th Quarter	11/11/2008	957	5.0	1.5
	3rd Quarter	7/16/2008	1036	10.0	1.7
	2nd Quarter	5/13/2008	1312	12.0	3.0
	1st Quarter	3/11/2008	1255	8.0	3.1
BV - 3	4th Quarter	11/11/2008	1005	14.0	1.7
	3rd Quarter	7/16/2008	1039	6.0	1.5
	2nd Quarter	5/13/2008	1313	18.0	3.0
	1st Quarter	3/11/2008	1254	18.0	3.1
BV - 4	4th Quarter	11/11/2008	1003	6.0	1.0
	3rd Quarter	7/16/2008	1038	5.0	1.7
	2nd Quarter	5/13/2008	1317	6.0	3.0
	1st Quarter	3/11/2008	1253	12.0	3.1
BV - 5	4th Quarter	11/11/2008	1017	16.0	2.0
	3rd Quarter	7/16/2008	1047	10.0	1.7
	2nd Quarter	5/13/2008	1320	14.0	3.0
	1st Quarter	3/11/2008	1245	16.0	3.1
BV - 6	4th Quarter	11/11/2008	1000	11.0	1.5
	3rd Quarter	7/16/2008	1037	6.0	1.7
	2nd Quarter	5/13/2008	1323	4.0	3.0
	1st Quarter	3/11/2008	1252	4.0	3.1
BV - 7	4th Quarter	11/11/2008	1013	8.0	1.5
	3rd Quarter	7/16/2008	1046	5.0	1.7
	2nd Quarter	5/13/2008	1324	6.0	3.0
	1st Quarter	3/11/2008	1248	11.0	3.1

River Terrace

BV Air Pressure 2008

Sample Location	Sampling Activities	Date	Time	Velocity (scfm)	Pressure (psi)
BV - 8	4th Quarter	11/11/2008	1015	10.0	2.0
	3rd Quarter	7/16/2008	1045	6.0	1.7
	2nd Quarter	5/13/2008	1302	6.0	3.0
	1st Quarter	3/11/2008	1246	12.0	3.1
BV - 9	4th Quarter	11/11/2008	1011	5.0	1.5
	3rd Quarter	7/16/2008	1041	6.0	1.7
	2nd Quarter	5/13/2008	1300	8.0	3.0
	1st Quarter	3/11/2008	1249	8.0	3.1
BV - 10	4th Quarter	11/11/2008	1014	5.0	2.0
	3rd Quarter	7/16/2008	1044	5.0	1.7
	2nd Quarter	5/13/2008	1327	6.0	3.0
	1st Quarter	3/11/2008	1247	8.0	3.1
BV - 11	4th Quarter	11/11/2008	1012	14.0	1.5
	3rd Quarter	7/16/2008	1040	6.0	1.7
	2nd Quarter	5/13/2008	1330	8.0	3.0
	1st Quarter	3/11/2008	1251	8.0	3.1
BV - 12	4th Quarter	11/11/2008	1009	7.0	1.5
	3rd Quarter	7/16/2008	1043	9.0	1.7
	2nd Quarter	5/13/2008	1332	6.0	3.0
	1st Quarter	3/11/2008	1248	8.0	3.1
BV - 13	4th Quarter	11/11/2008	1007	5.0	1.5
	3rd Quarter	7/16/2008	1042	5.0	1.7
	2nd Quarter	5/13/2008	1335	12.0	3.0
	1st Quarter	3/11/2008	1250	14.0	3.1

GAC Filter Monitoring 2008 Annual Report			EPA Method 8021B				EPA Method 8015B	
			MCL	WQCC 20NMAC 6.2:3103	MCL	WQCC 20NMAC 6.2:3103	TPH Screening Guidelines Table 2a	
			0.005	0.75	0.70	0.62	1.72	
Sample Location	Sampling Event	DATE	Benzene (mg/L)	Toluene (mg/L)	Ethylben (mg/L)	Xylene (mg/L)	DRO (mg/L)	GRO (mg/L)
GAC INLET	4th Quarter	10/15/08	<0.0009 ¹	<0.01	0.580	4.80	4.4	16.00
	3rd Quarter	07/02/08	0.012	<0.01	0.540	7.30	<1.0	20.00
	2nd Quarter	04/15/08	0.050	<0.01	0.380	1.900	<1.0	8.40
	1st Quarter	03/06/08	0.070	<0.01	0.430	1.00	<1.0	7.00
Lead Filter (V-611) North Filter		12/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
		11/04/08	NS	NS	NS	NS	NS	NS
	4th Quarter	10/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.10
		09/09/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
		08/05/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
	3rd Quarter	07/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
		06/09/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
		05/05/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
	2nd Quarter	04/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
	1st Quarter	03/06/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
		02/04/08	NS	NS	NS	NS	NS	NS
		01/04/08	NS	NS	NS	NS	NS	NS
GAC 1 EFF (V-612) South Filter	4th Quarter	10/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.10
	3rd Quarter	07/02/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
	2nd Quarter	04/15/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05
	1st Quarter	03/06/08	<0.001	<0.001	<0.001	<0.002	<1.0	<0.05

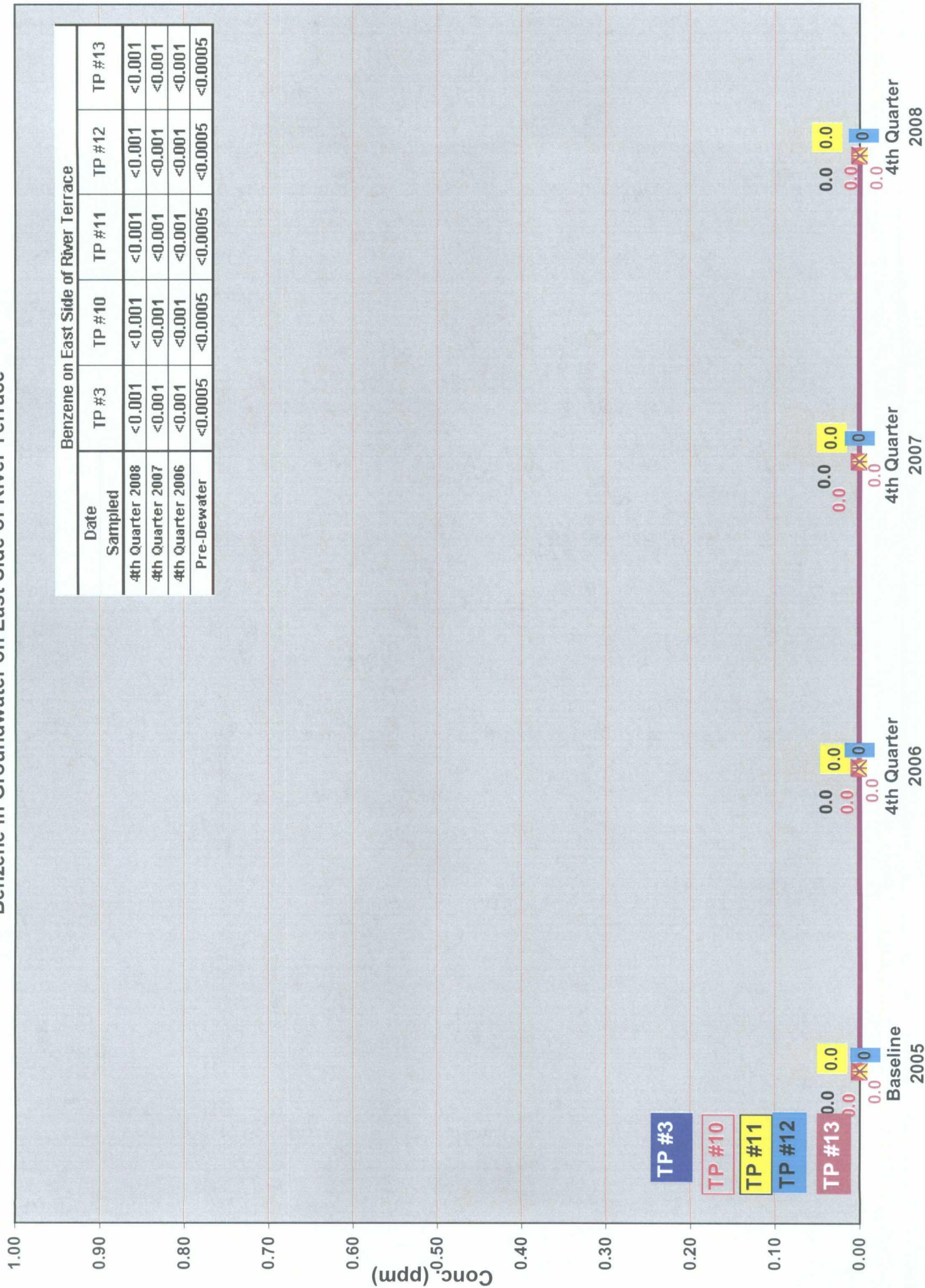
NS = Sample Inadvertently not Collected this Sampling Event

1. MDL (Method Detection Limit)

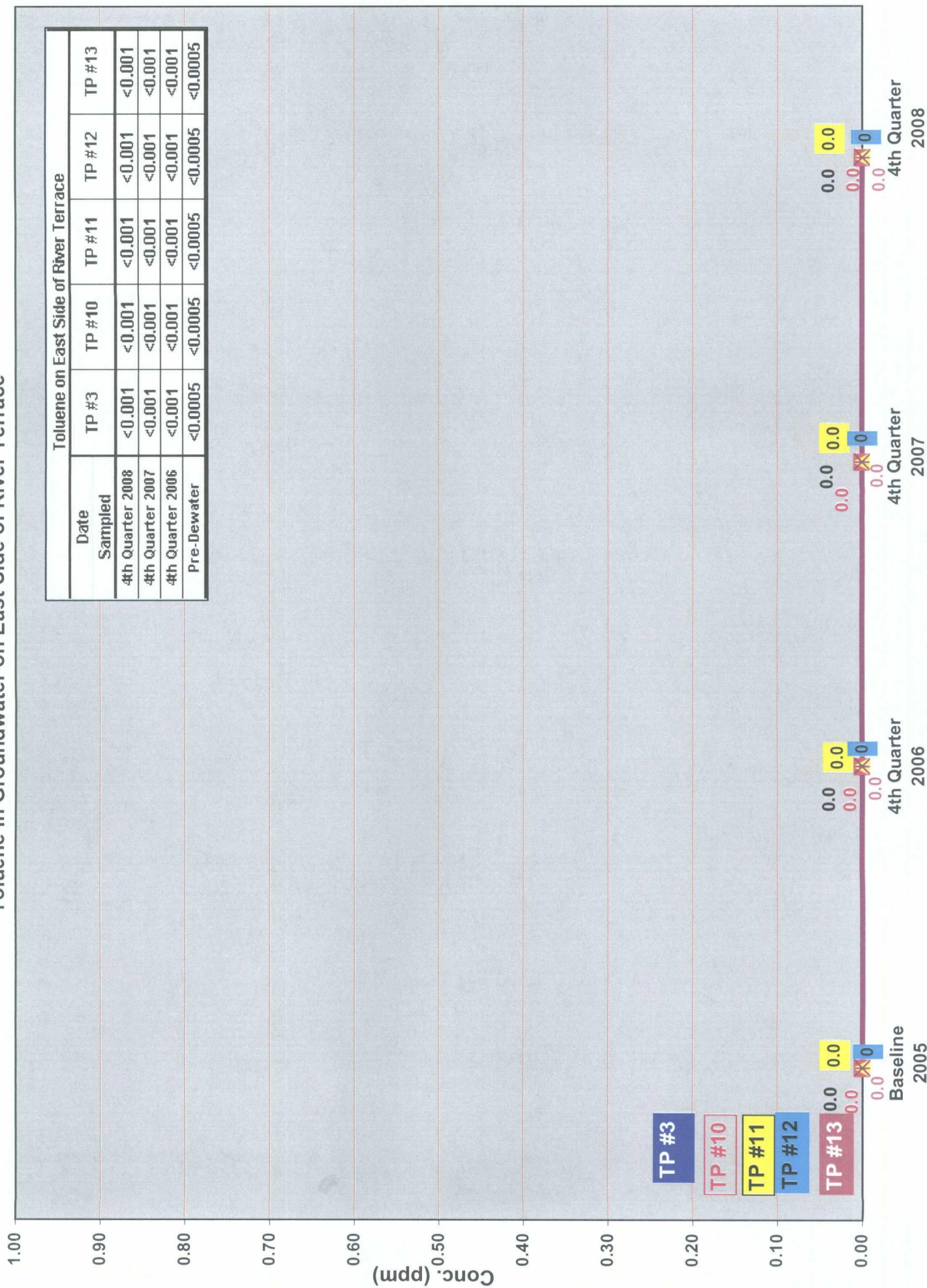
Section 6.0 BTEX Concentration VS Time Charts

<u>Title</u>	<u>Tab Number</u>
BTEX Concentration East Side.....	6
BTEX Concentration West Side.....	7
BTEX Concentration Remaining Wells.....	8

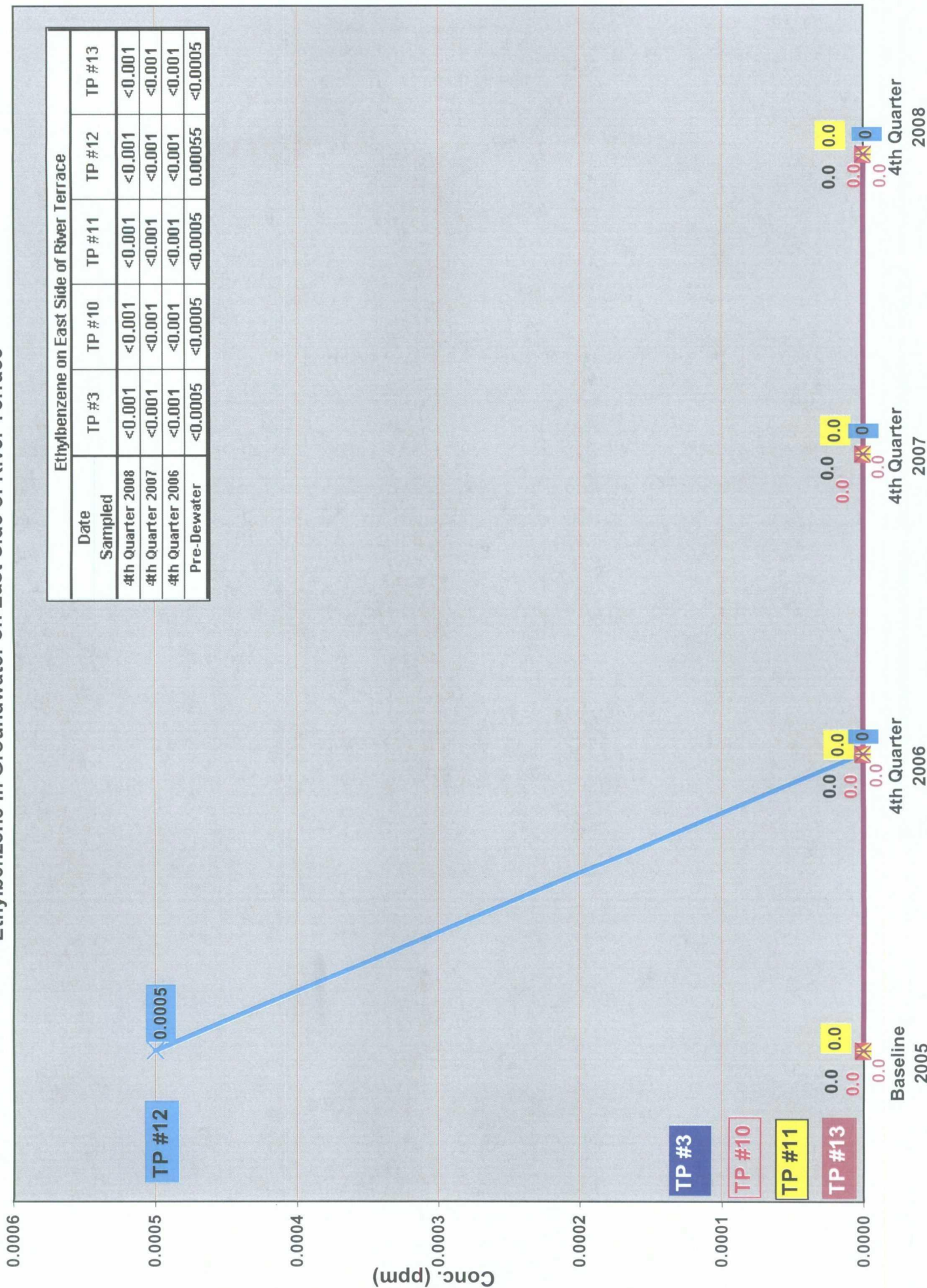
Benzene in Groundwater on East Side of River Terrace



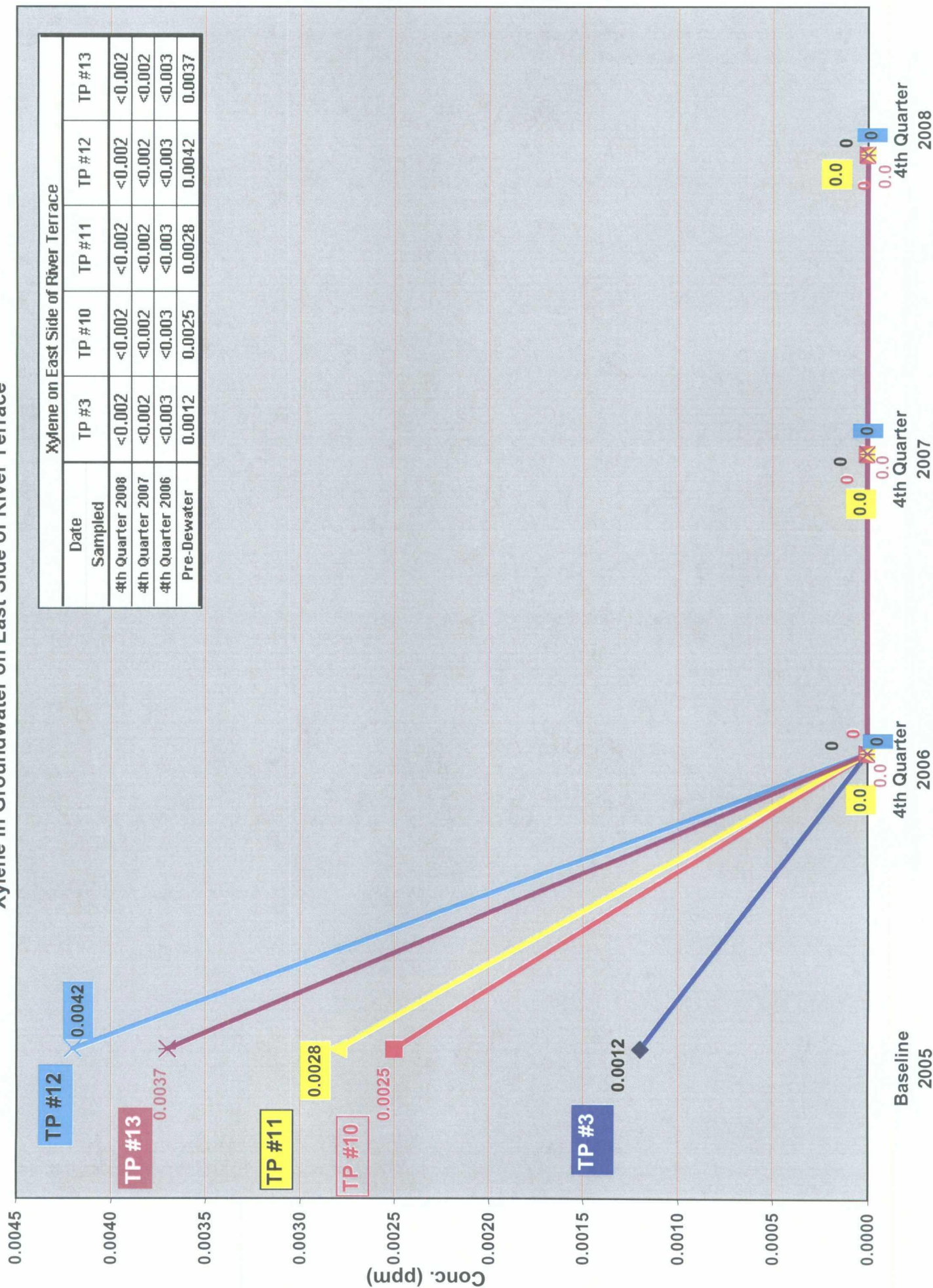
Toluene in Groundwater on East Side of River Terrace



Ethylbenzene in Groundwater on East Side of River Terrace

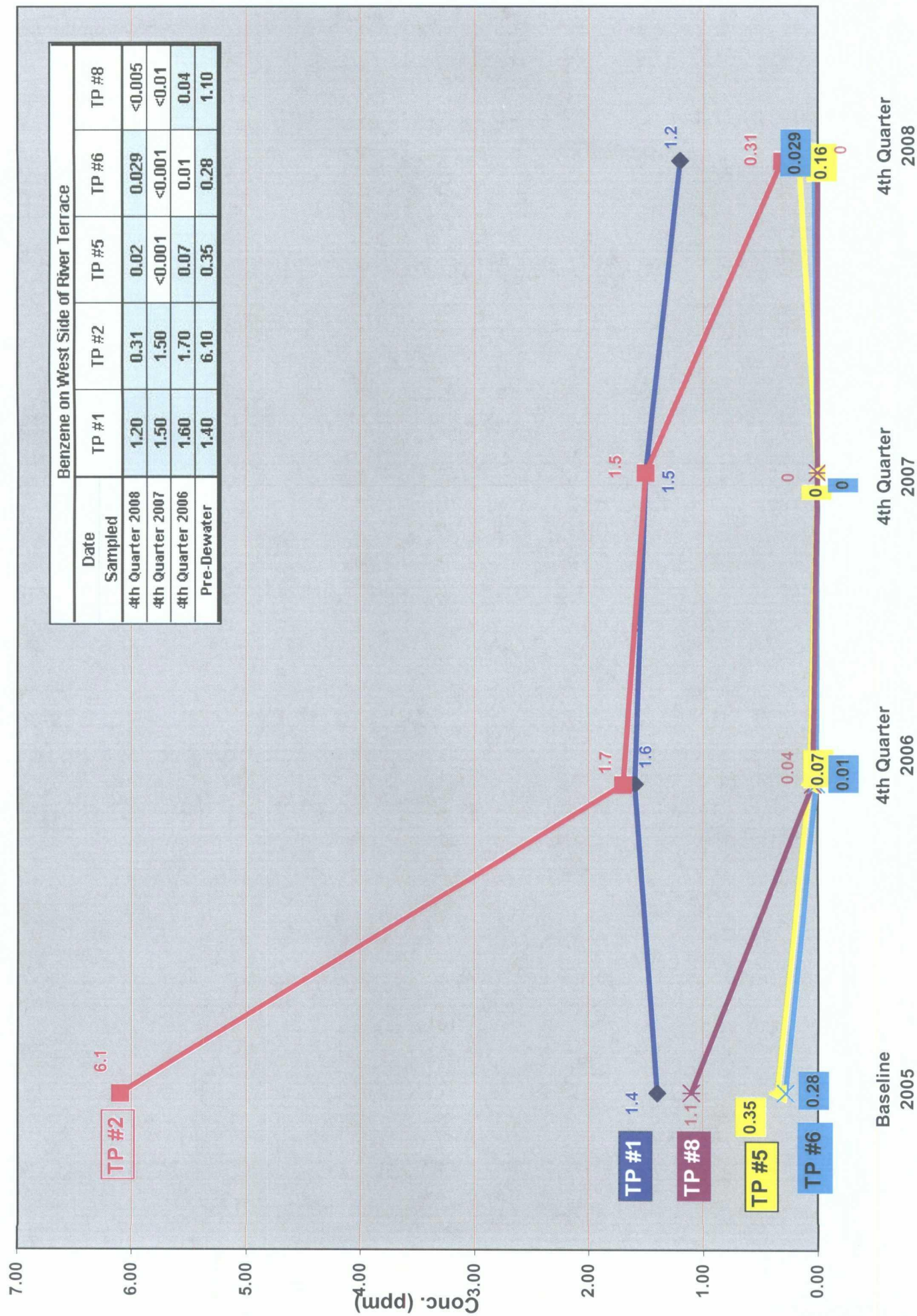


Xylene in Groundwater on East Side of River Terrace



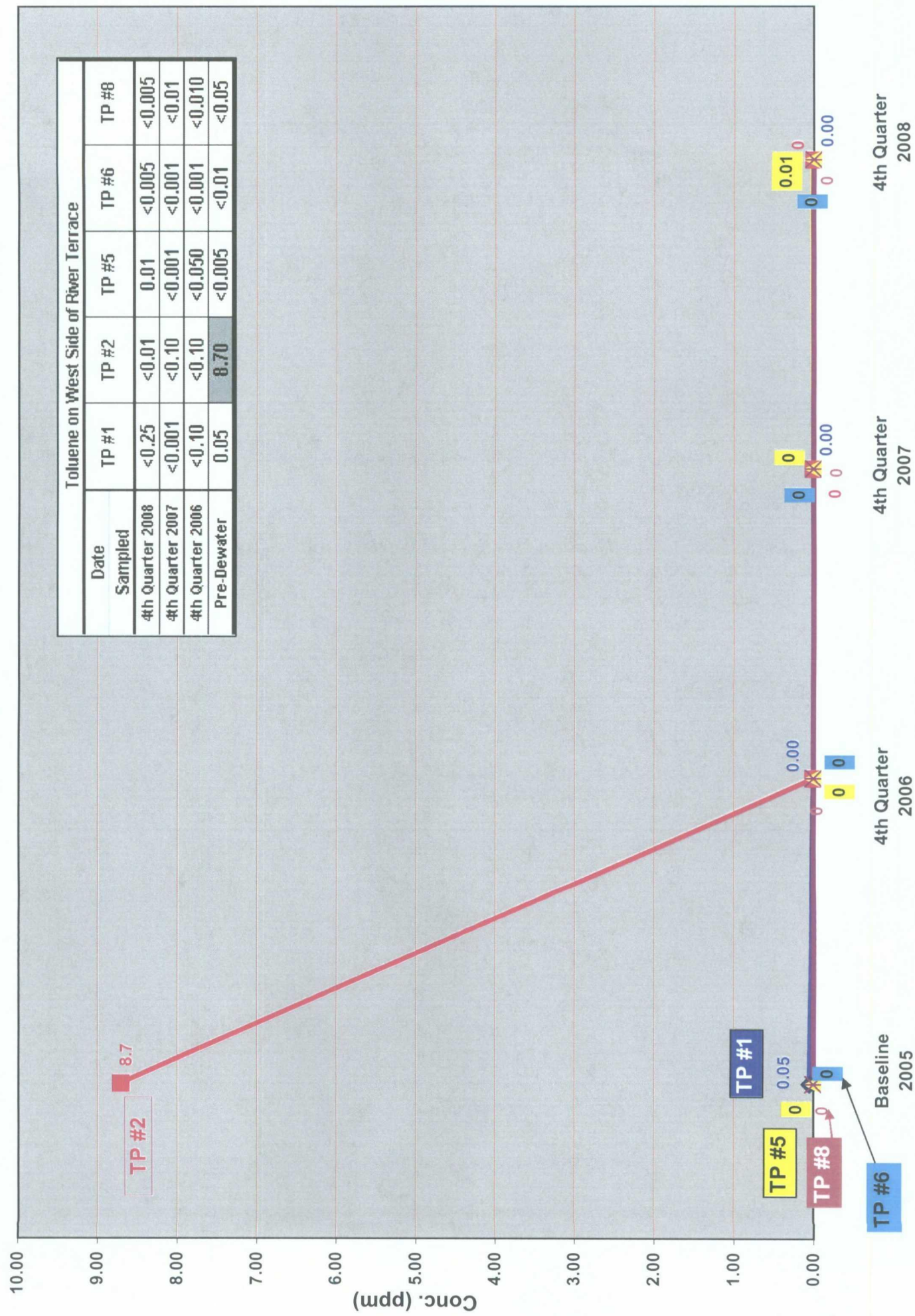
Xylene on East Side of River Terrace						
Date Sampled	TP #3	TP #10	TP #11	TP #12	TP #13	
4th Quarter 2008	<0.002	<0.002	<0.002	<0.002	<0.002	
4th Quarter 2007	<0.002	<0.002	<0.002	<0.002	<0.002	
4th Quarter 2006	<0.003	<0.003	<0.003	<0.003	<0.003	
Pre-Dewater	0.0012	0.0025	0.0028	0.0042	0.0037	

Benzene in Groundwater on West Side of River Terrace



TP #1

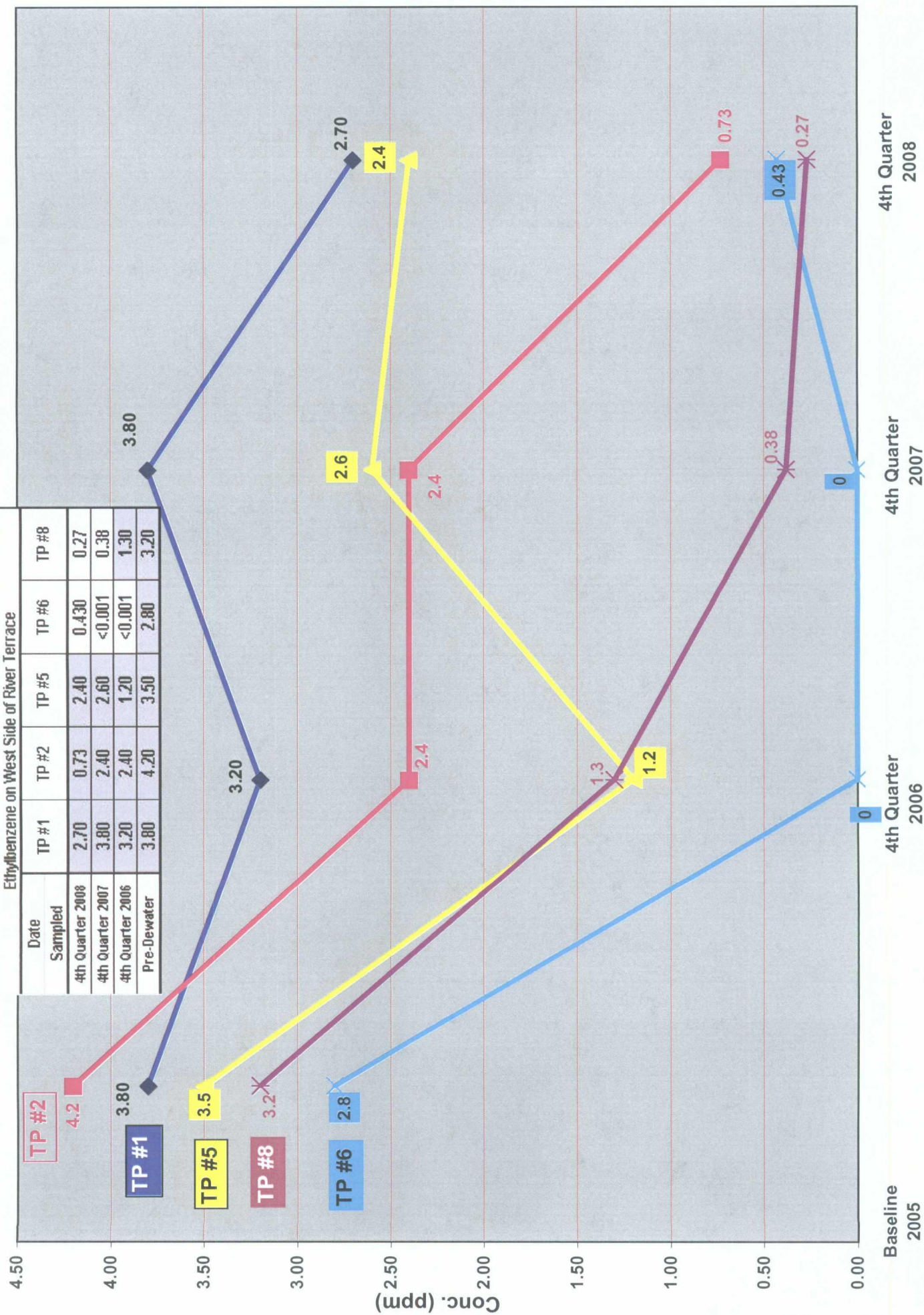
Toluene in Groundwater on West Side of River Terrace



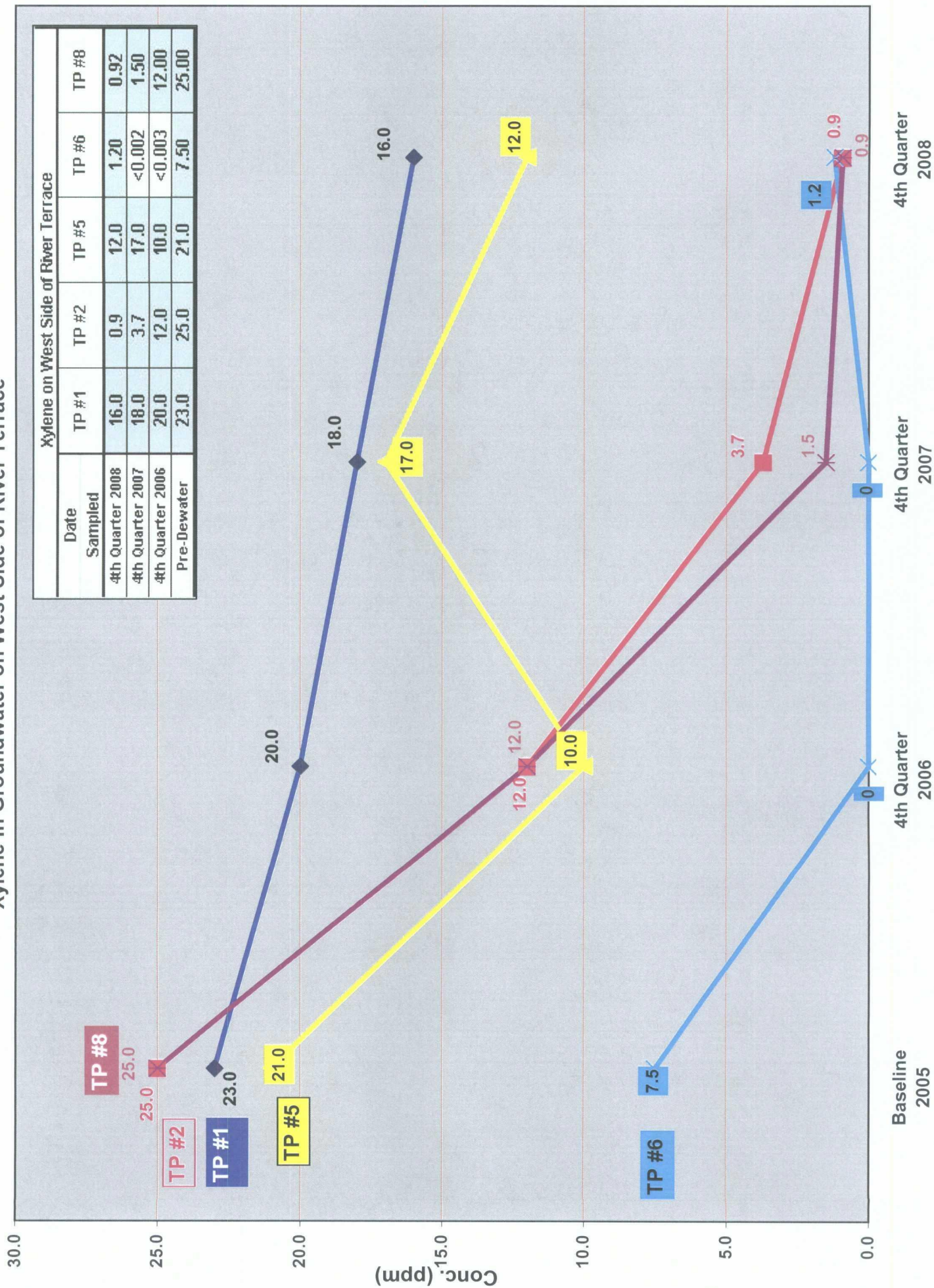
Toluene on West Side of River Terrace					
Date Sampled	TP #1	TP #2	TP #5	TP #6	TP #8
4th Quarter 2008	<0.25	<0.01	0.01	<0.005	<0.005
4th Quarter 2007	<0.001	<0.10	<0.001	<0.001	<0.01
4th Quarter 2006	<0.10	<0.10	<0.050	<0.001	<0.010
Pre-Dewater	0.05	8.70	<0.005	<0.01	<0.05

Ethylbenzene in Groundwater on West Side of River Terrace

Ethylbenzene on West Side of River Terrace							
Date Sampled	TP #1	TP #2	TP #5	TP #6	TP #8		
4th Quarter 2008	2.70	0.73	2.40	0.430	0.27		
4th Quarter 2007	3.80	2.40	2.60	<0.001	0.38		
4th Quarter 2006	3.20	2.40	1.20	<0.001	1.30		
Pre-Dewater	3.80	4.20	3.50	2.80	3.20		



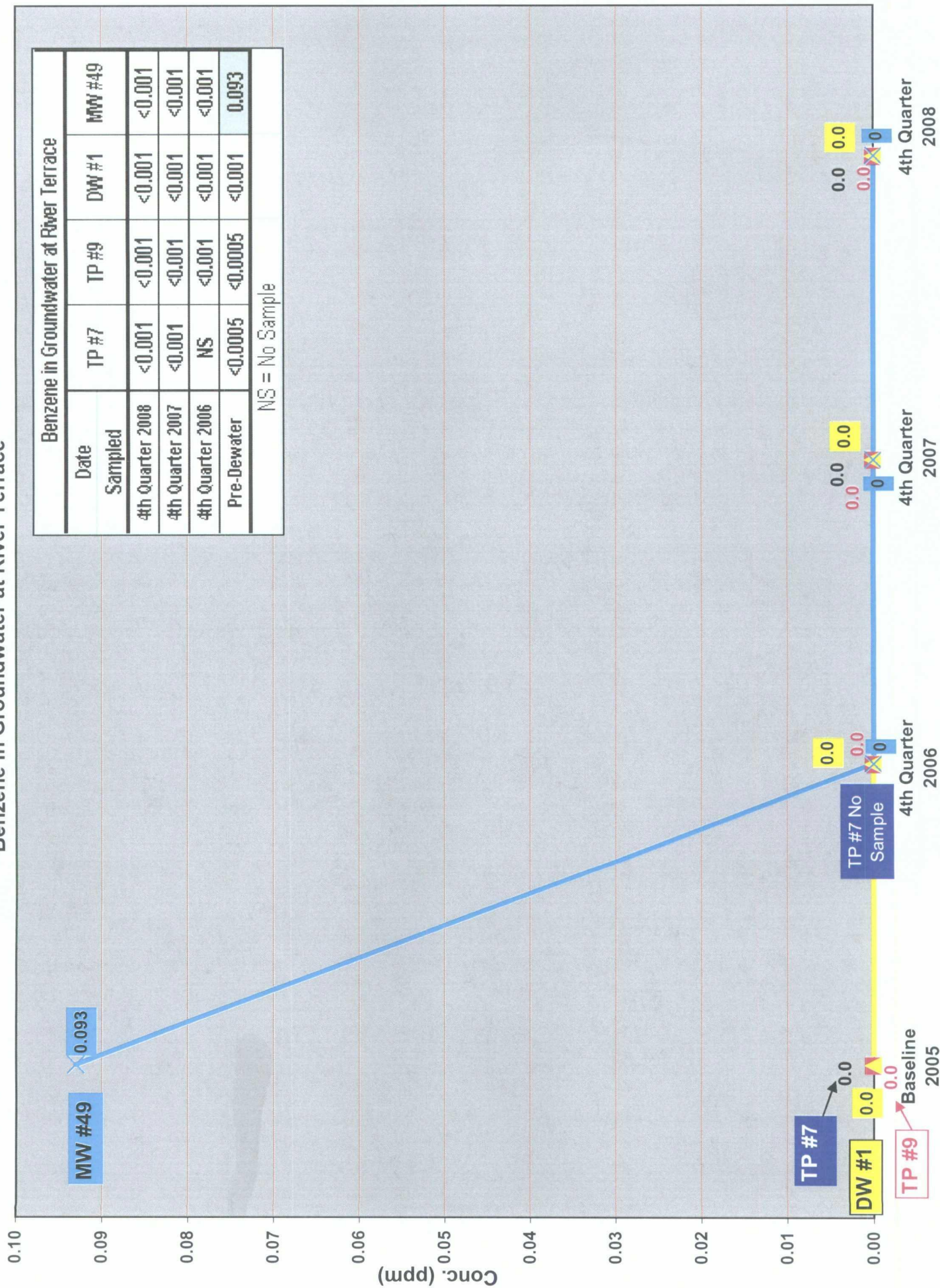
Xylene in Groundwater on West Side of River Terrace



Benzene in Groundwater at River Terrace

Benzene in Groundwater at River Terrace					
Date Sampled	TP #7	TP #9	DW #1	MW #49	
4th Quarter 2008	<0.001	<0.001	<0.001	<0.001	
4th Quarter 2007	<0.001	<0.001	<0.001	<0.001	
4th Quarter 2006	NS	<0.001	<0.001	<0.001	
Pre-Dewater	<0.0005	<0.0005	<0.001	0.093	

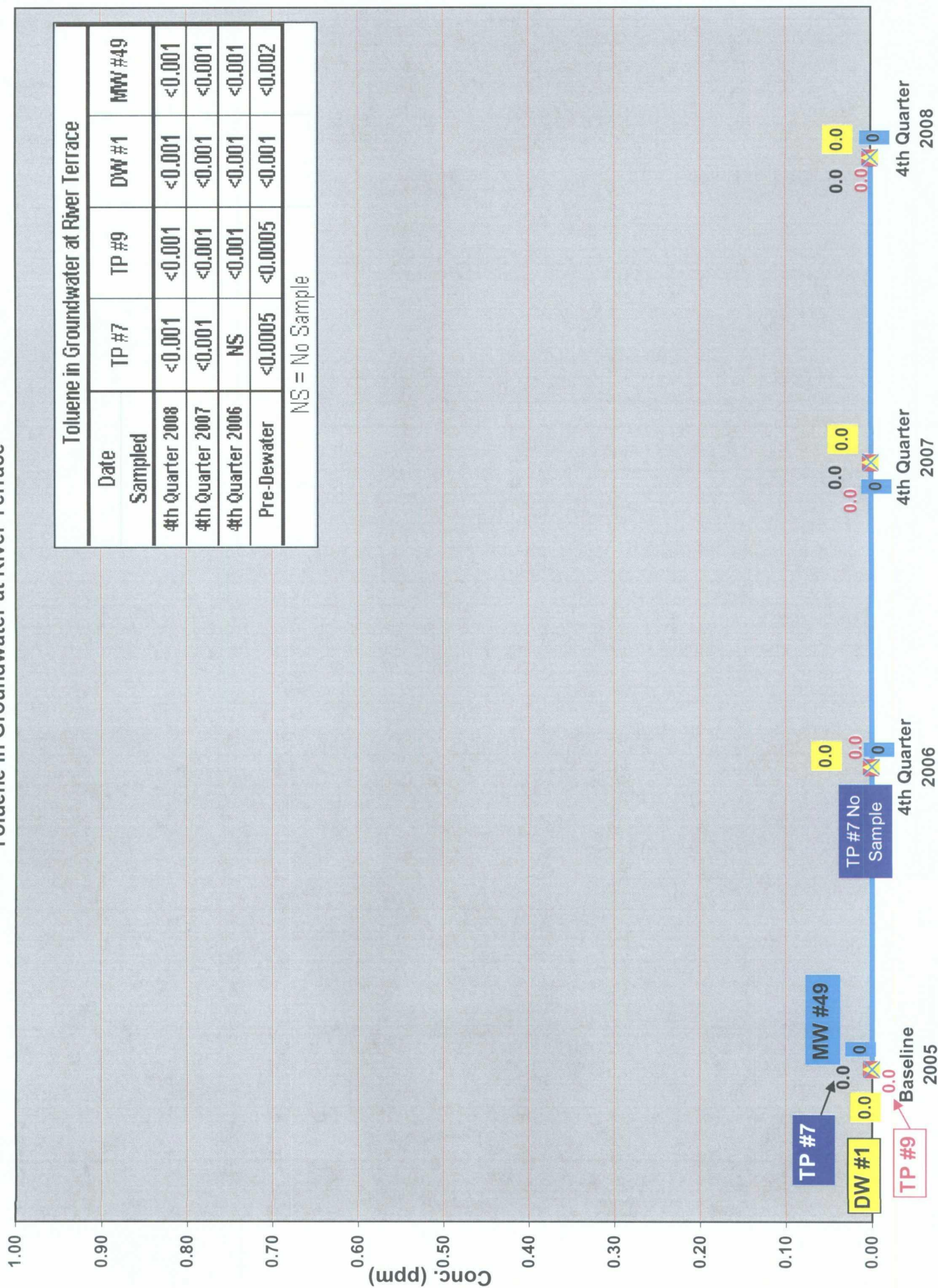
NS = No Sample



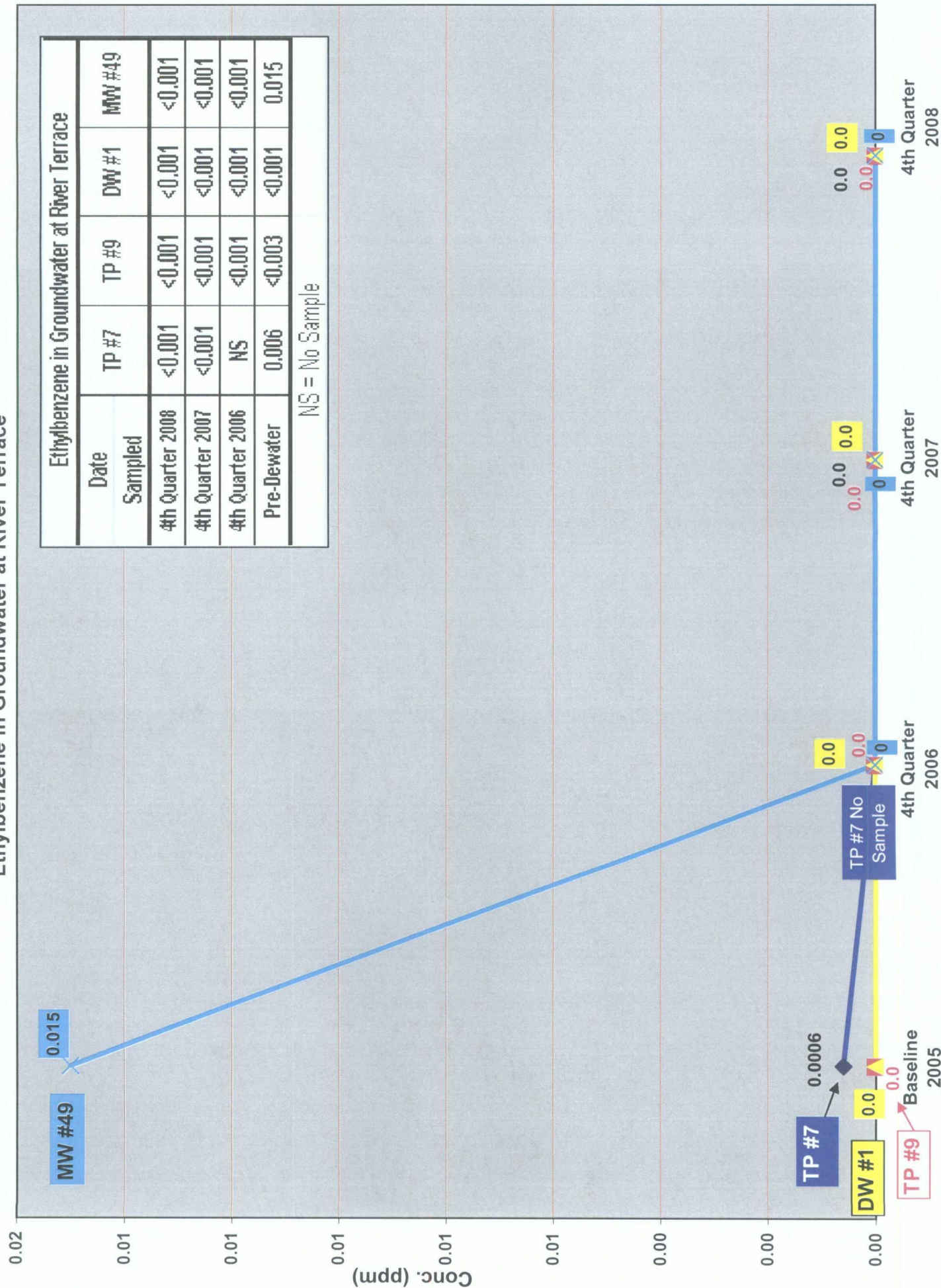
Toluene in Groundwater at River Terrace

Toluene in Groundwater at River Terrace				
Date Sampled	TP #7	TP #9	DW #1	MW #49
4th Quarter 2008	<0.001	<0.001	<0.001	<0.001
4th Quarter 2007	<0.001	<0.001	<0.001	<0.001
4th Quarter 2006	NS	<0.001	<0.001	<0.001
Pre-Dewater	<0.0005	<0.0005	<0.001	<0.002

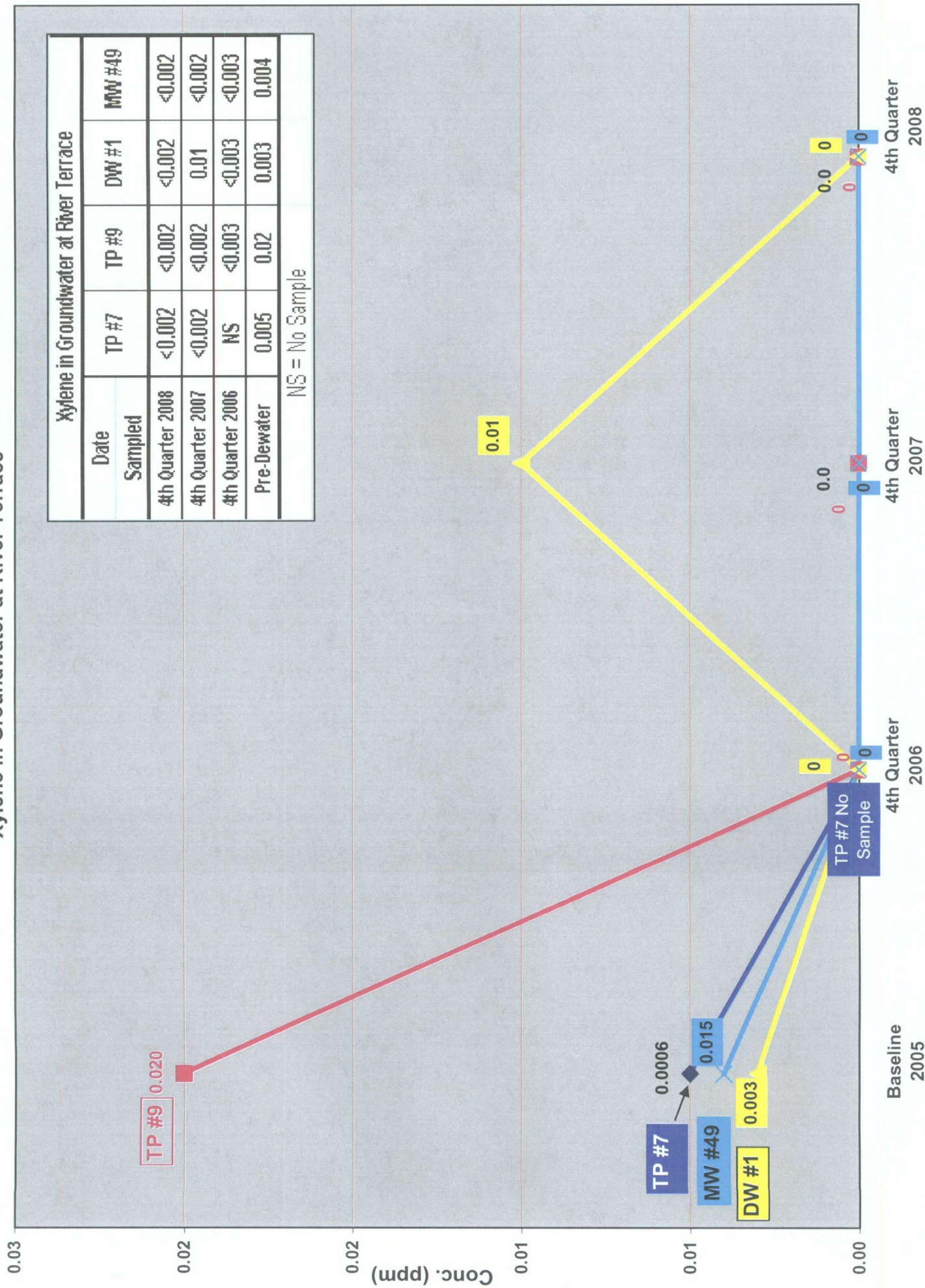
NS = No Sample



Ethylbenzene in Groundwater at River Terrace



Xylene in Groundwater at River Terrace



Xylene in Groundwater at River Terrace					
Date Sampled	TP #7	TP #9	DW #1	MW #49	
4th Quarter 2008	<0.002	<0.002	<0.002	<0.002	
4th Quarter 2007	<0.002	<0.002	0.01	<0.002	
4th Quarter 2006	NS	<0.003	<0.003	<0.003	
Pre-Dewater	0.005	0.02	0.003	0.004	
NS = No Sample					

Section 7.0 Summary

Summary

Construction of the River Terrace Bioventing Project was initiated in August 2005. The system was put on-line in January 2006. On-going sampling at the River Terrace is conducted in accordance with the approved Bioventing System Monitoring Plan, dated October 28, 2006, and in accordance with an NMED comment letter dated June 13, 2007. These revisions were implemented during the second quarter sampling event of 2007 and continued throughout 2008.

Data Collection

First quarter groundwater samples were collected from each of the TP Wells, DW #1, and MW #49 during the week of March 10, 2008. TP-7 was sampled after a 24 hour recharge time. Groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and Total Lead (EPA Method 6010). DW #1 was also analyzed for Mercury (EPA Method 7470). Field measurements included temperature, pH, conductivity, DO, and ORP.

Second quarter sampling occurred during the week of May 12, 2008. TP-7 was sampled after a 24 hour recharge time. Annual analysis of chromium and barium (EPA Method 6010) was conducted in the second quarter event. Lead analysis (EPA Method 6010) was performed on all of the TP Wells, MW #49, and DW#1. DW #1 samples were also analyzed for mercury (EPA Method 7470). In addition, groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B). Field measurements included temperature, pH, conductivity, DO, and ORP.

Third quarter monitoring occurred during the week of July 14, 2008 and fourth quarter monitoring was conducted during the week of November 10, 2008. During each sampling event, all TP Wells, MW #49, and DW #1 groundwater samples were analyzed for BTEX and MTBE (EPA Method 8021B), GRO and DRO (EPA Method 8015B), and total lead analysis (EPA Method 6010B). Samples collected during the fourth quarter sampling event were inadvertently not analyzed for mercury due to laboratory error. Mercury analysis will be included in on-going monitoring events. Field measurements included temperature, pH, conductivity, DO, and ORP. TP-7 was sampled after a 24 hour recharge time.

GAC filter influent samples (GAC Inf) and effluent samples collected downstream of the lag GAC filter (GAC 1 Eff – V-612) were collected quarterly. Effluent samples from the lead GAC filter (GAC 2 Eff – V-611) were obtained every month except for the months of January, February, and November. Refinery personnel have established an on-going monthly checklist to ensure that sample

events are not inadvertently missed. Samples were analyzed for BTEX by EPA Method 8021B, GRO and DRO by EPA Method 8015B.

Analysis and Conclusions

Since August 2005, BTEX concentrations in groundwater show a decreasing trend over time at wells within the western portion of the River Terrace (TP-1, 2, 5, 6 and 8). BTEX concentration vs time graphs located in Section 6.0 demonstrate this decreasing trend over the last three years. Analytical results of the groundwater monitoring continue to indicate that the contaminants of concern are primarily benzene, ethylbenzene, and xylene for these wells.

Fluctuation in groundwater concentration at wells within the western portion of the River Terrace were most likely caused by fluctuating groundwater levels due to dewatering system operations and change in river flow, thus causing a flushing effect of the soil.

Analytical results of samples collected from the wells on the eastern portion of the River Terrace (TP-3, 10, 11, 12, and 13) continue to be below method detection limits. BTEX concentration vs time graphs in Section 6.0 illustrate that non-detect results have consistently occurred in the eastern portion of the River Terrace since 2006. BTEX results are still below WQCC Standards at wells located on the eastern most side of the bioventing area (TP #7, TP #9, DW #1). During the second quarter sampling event, MW #49 registered a very low concentration of benzene (0.0018 mg/L) which was below regulatory standards. Subsequent benzene results at MW #49 were non-detect (<0.001 mg/L).

Annual analysis of barium and chromium total metals has occurred since second quarter 2007 for all River Terrace wells. The detected concentrations of barium and chromium have repeatedly been below New Mexico water quality standards of 1.00 mg/L and 0.05 mg/L, respectively.

Quarterly monitoring of total lead at the River Terrace shows concentrations ranging between 0.3 mg/L down to <0.005 mg/L, with the highest concentration detected at TP-8 during the October 2007 sampling event. TP-8 is located on the refinery-side of the river terrace slurry wall, and therefore is unlikely to impact the San Juan River.

Mercury was detected one time at DW-1 during the February 2007 sampling event. Mercury was not detected in any subsequent sampling events.

Field data indicates the bioventing system is continuing to enhance bioremedial activity within the river terrace area around TP-#1, TP-#2, TP-#5, TP-#6, and TP-#8. Soil gas concentrations collected in the field indicate that the bioventing system is providing enough oxygen to sustain optimal microbial activity (e.g., vapor-phase oxygen concentrations at or above 5 percent).

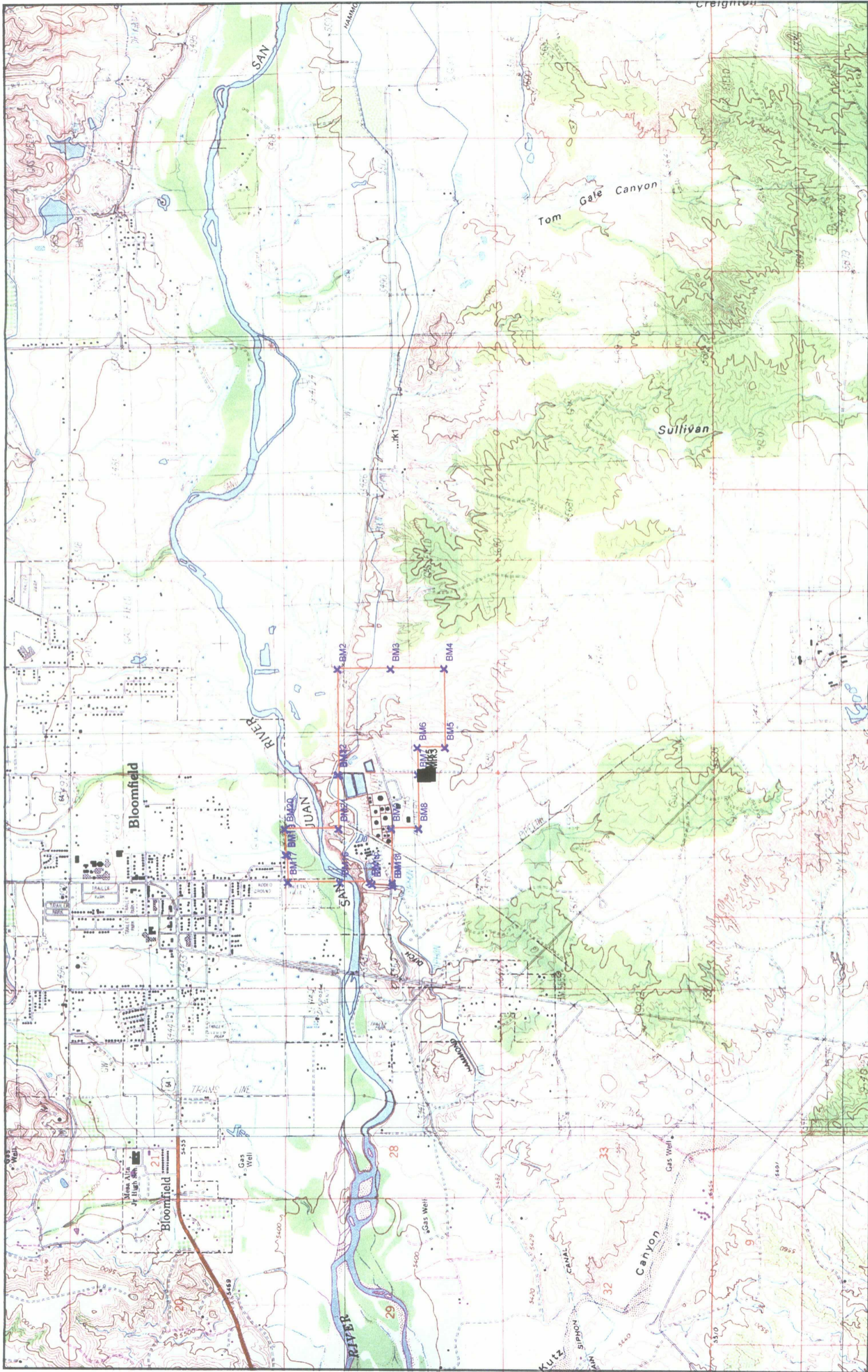
GAC Analysis

Break through in the GAC did not occur in 2008. Efforts have been made to optimize the dewatering system without damaging the pumps by adjusting pump speed to match pump outflow with water table inflow. Flow rate through the GAC has been affected by these efforts. Options to optimize pump rates and improve dewatering efficiency are being explored.

Refinery personnel will continue to analyze GAC 2 EFF (V-611) for BTEX, GRO, and DRO on a monthly basis. GAC INF and GAC 1 EFF (V-612) will be analyzed quarterly for BTEX, GRO, and DRO.

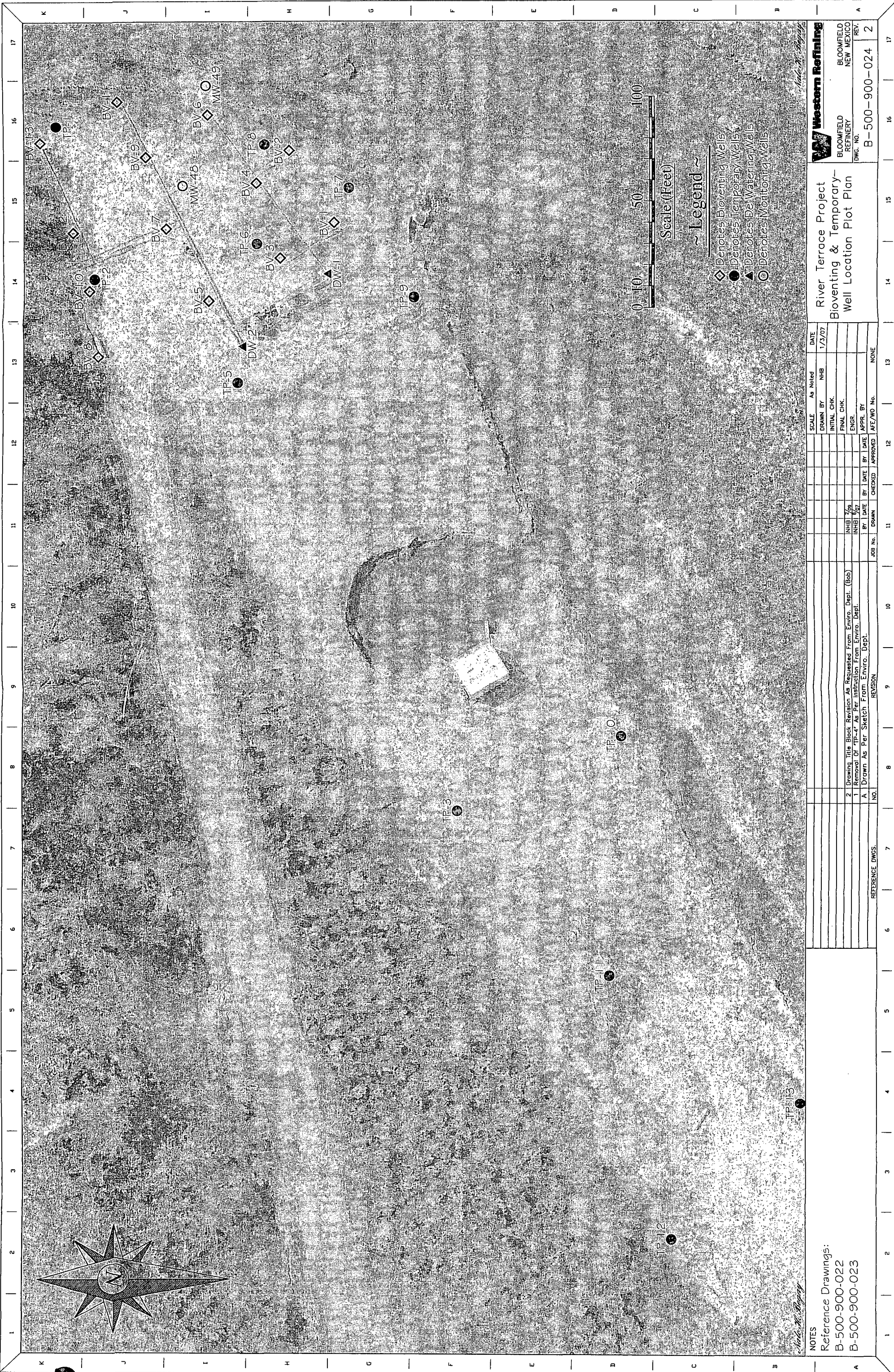
Section 8.0 Maps

<u>Title</u>	<u>Figure</u>
Vicinity Map.....	Figure 1
Facility Site Plan.....	Figure 2
River Terrace Bioventing Project Plot Plan.....	Figure 3
Soil Vapor 1st QTR BTEX Concentration Map.....	Figure 4
Soil Vapor 2nd QTR BTEX Concentration Map.....	Figure 5
Soil Vapor 3rd QTR BTEX Concentration Map.....	Figure 6
Soil Vapor 4th QTR BTEX Concentration Map.....	Figure 7
Groundwater 1st QTR BTEX Concentration Map.....	Figure 8
Groundwater 2nd QTR BTEX Concentration Map.....	Figure 9
Groundwater 3rd QTR BTEX Concentration Map.....	Figure 10
Groundwater 4th QTR BTEX Concentration Map.....	Figure 11



Scale: 1 inch equals 2000 feet






Notes: N. B. B. B. B.

Reference Drawings:
B-500-900-022
B-500-900-023

NOTES		SCALE		As Noted		DATE	
				NHB		1/3/07	
				INITIAL CHK.			
				FINAL CHK.			
				ENGR.			
				BY DATE		BY DATE	
				APPR. BY		APPR. BY	
				APPROVED		APPROVED	
				A/E/NO No.		NONE	

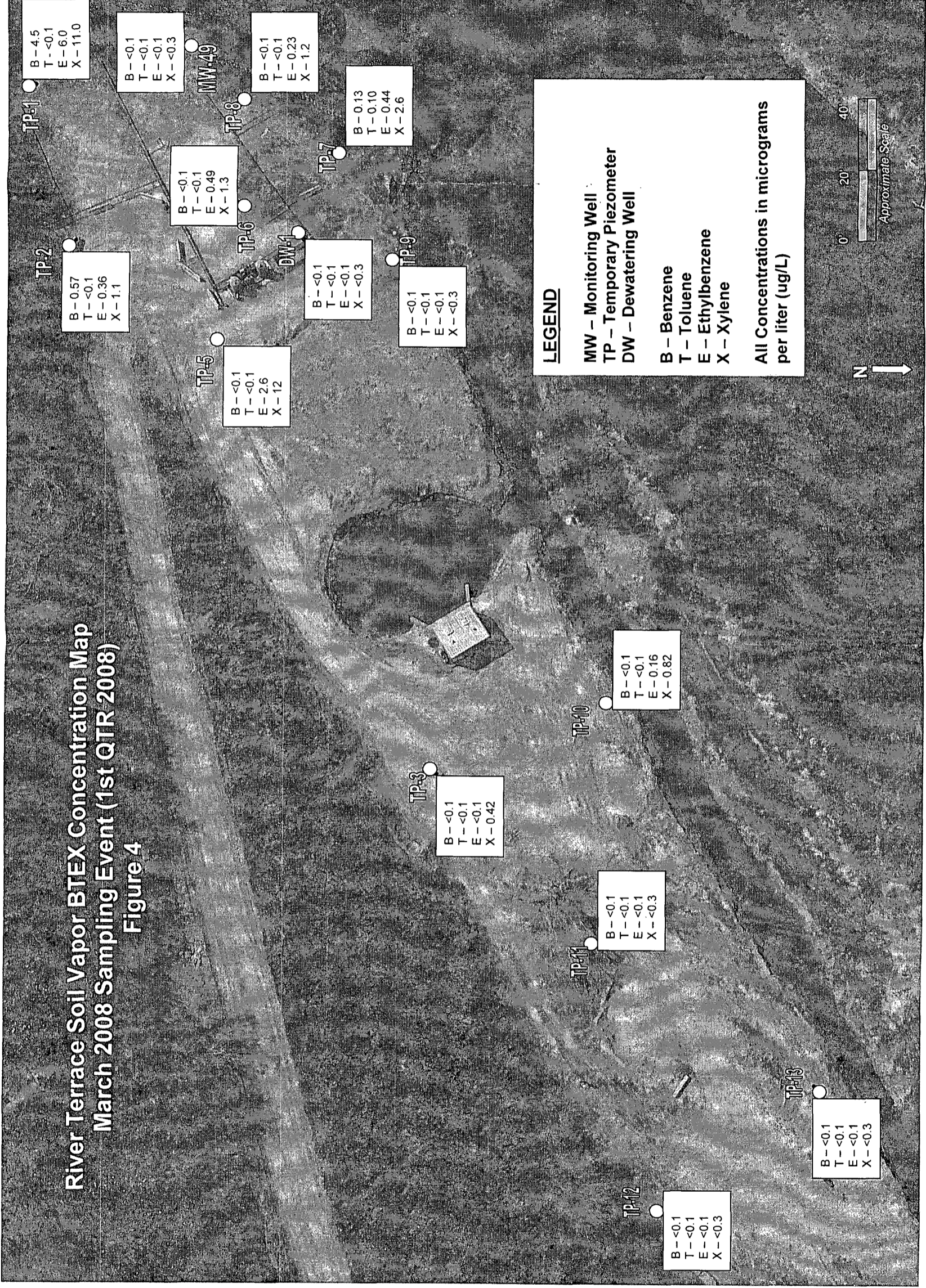
River Terrace Project
Bioventing & Temporary-
Well Location Plot Plan

**Western Refining**

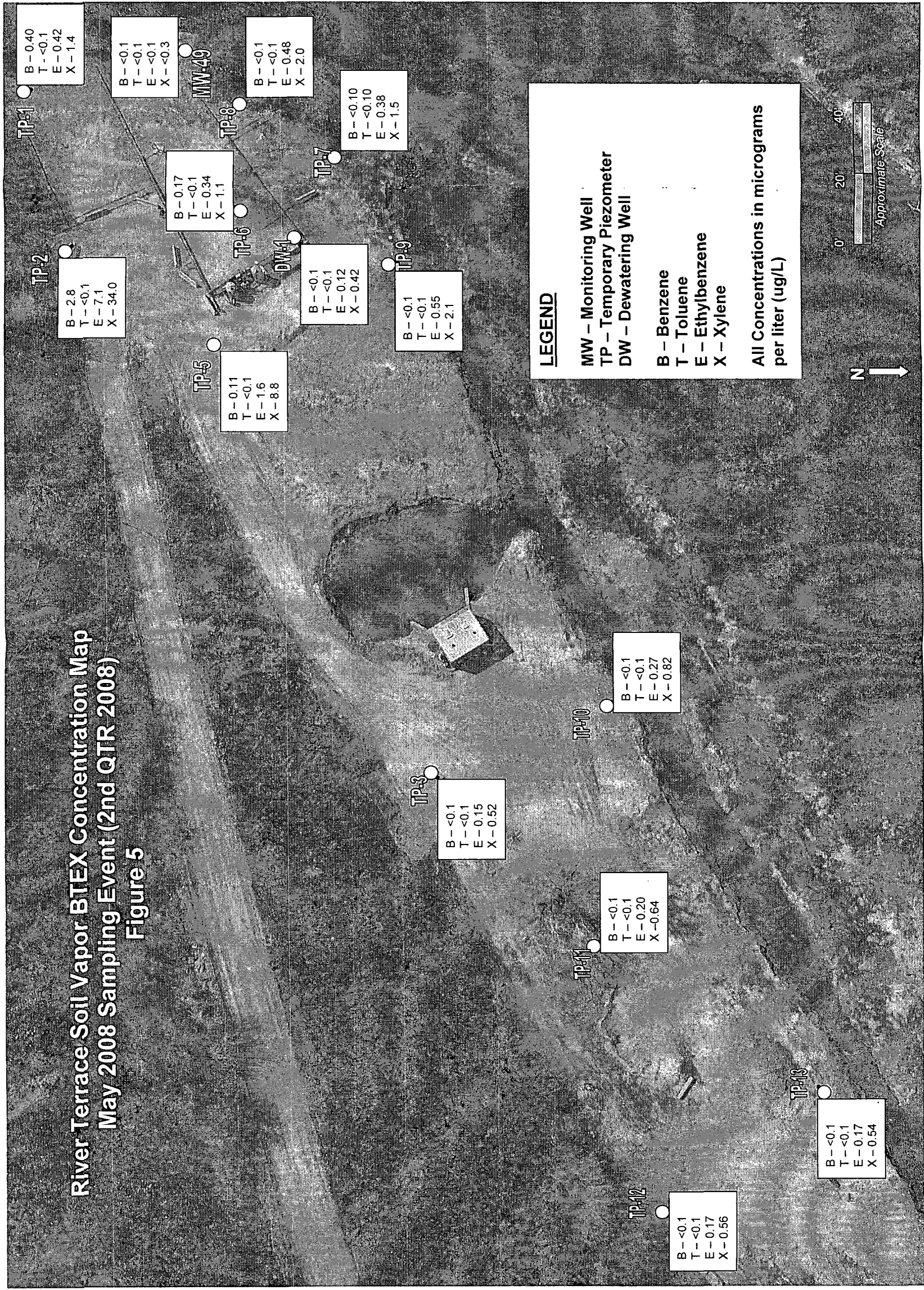
BLOOMFIELD
REFINERY
NEW MEXICO

DWG. NO. B-500-900-024
REV. 2

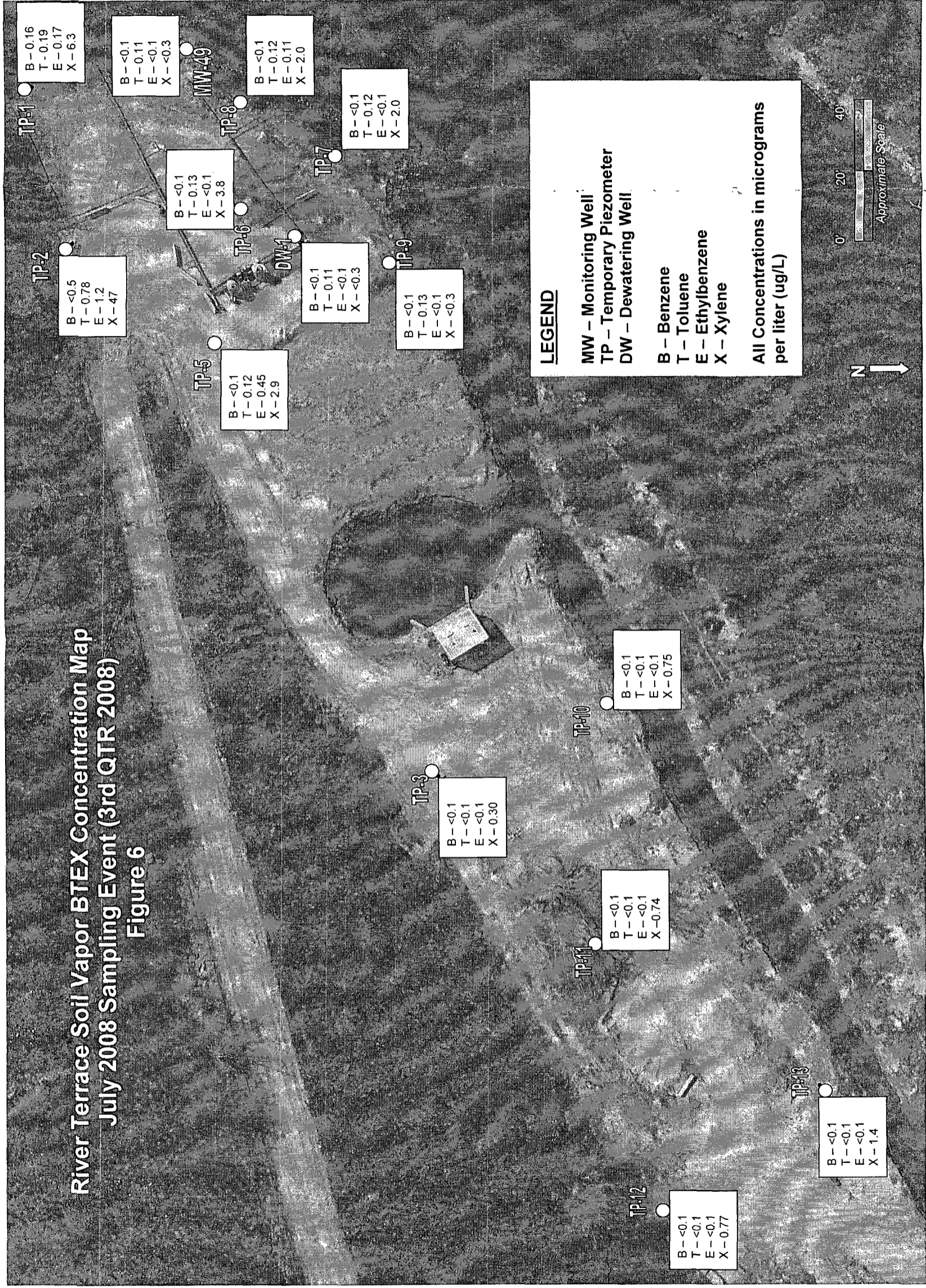
River Terrace Soil Vapor BTEX Concentration Map
March 2008 Sampling Event (1st QTR 2008)
Figure 4



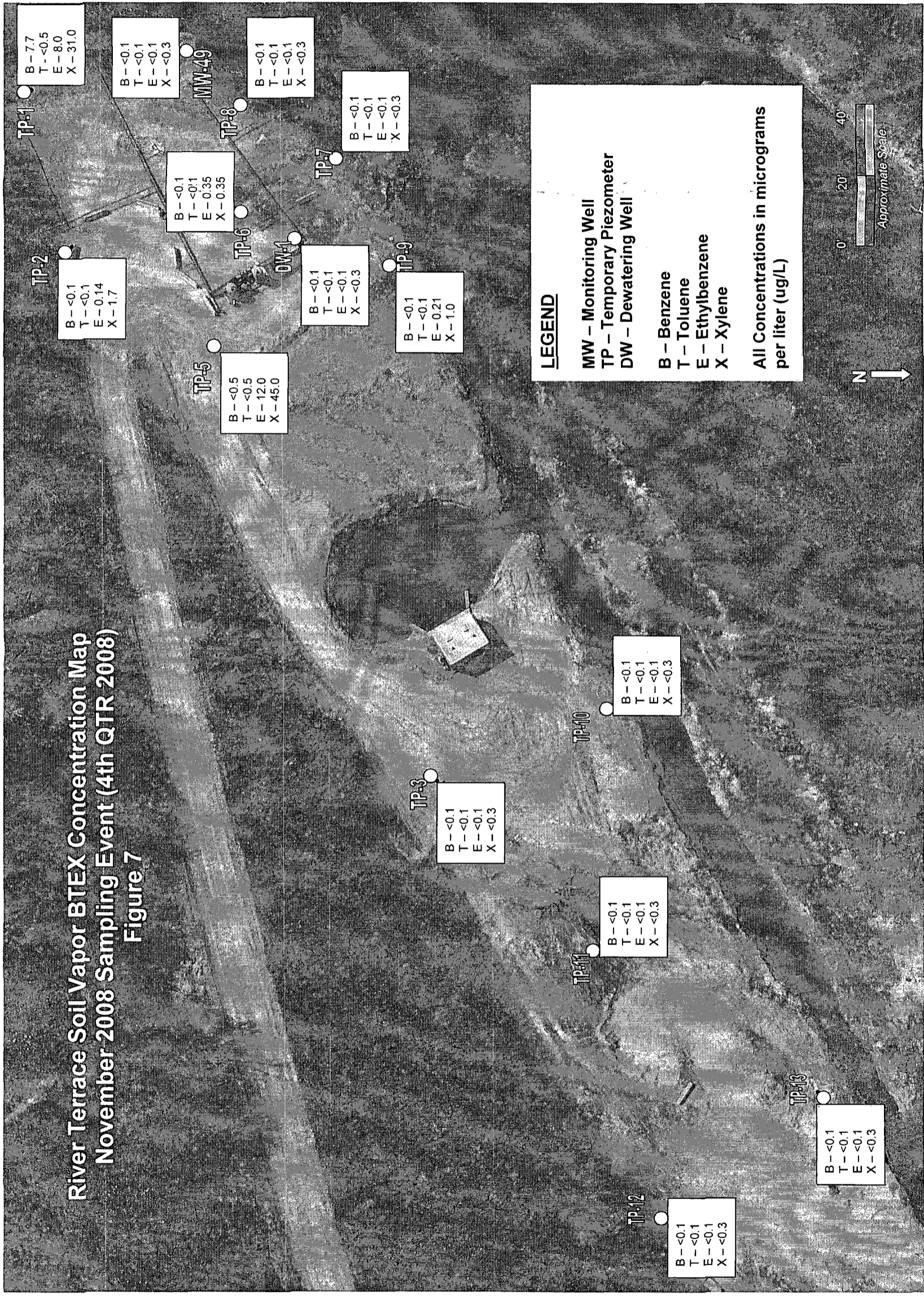
River Terrace Soil Vapor BTEX Concentration Map
May 2008 Sampling Event (2nd QTR 2008)
Figure 5



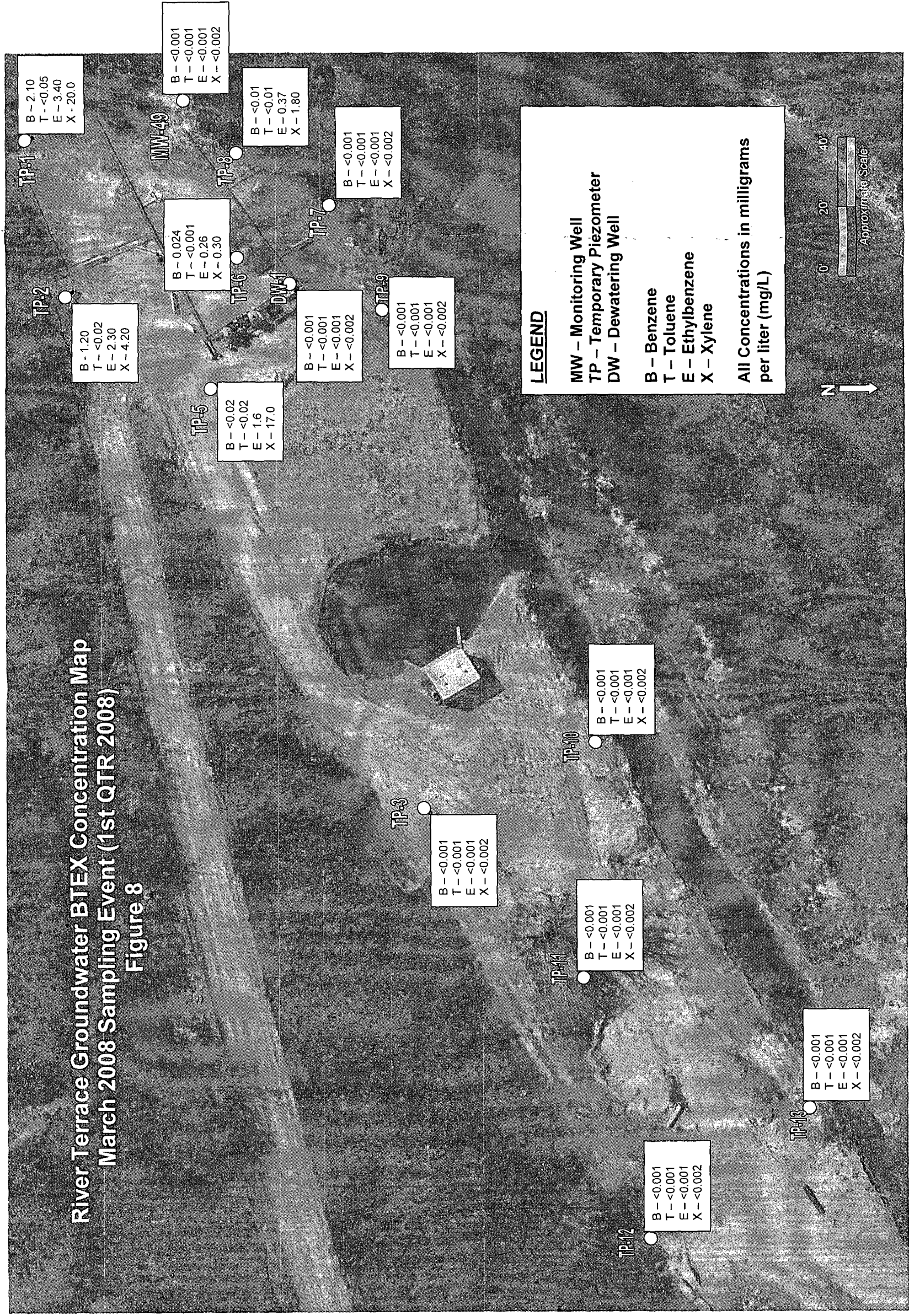
River Terrace Soil Vapor BTEX Concentration Map
July 2008 Sampling Event (3rd QTR 2008)
Figure 6



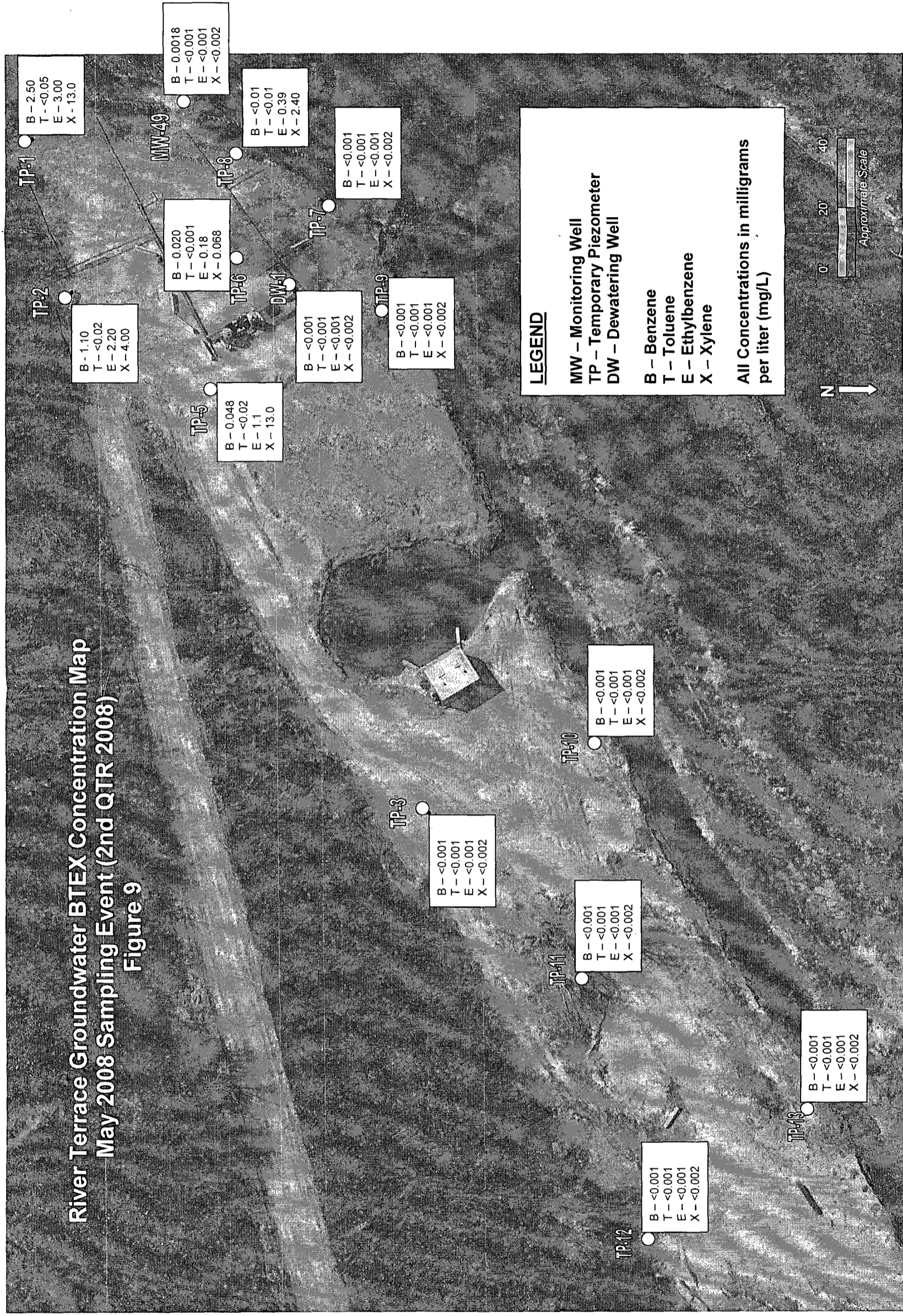
River Terrace Soil Vapor BTEX Concentration Map
November 2008 Sampling Event (4th QTR 2008)
Figure 7



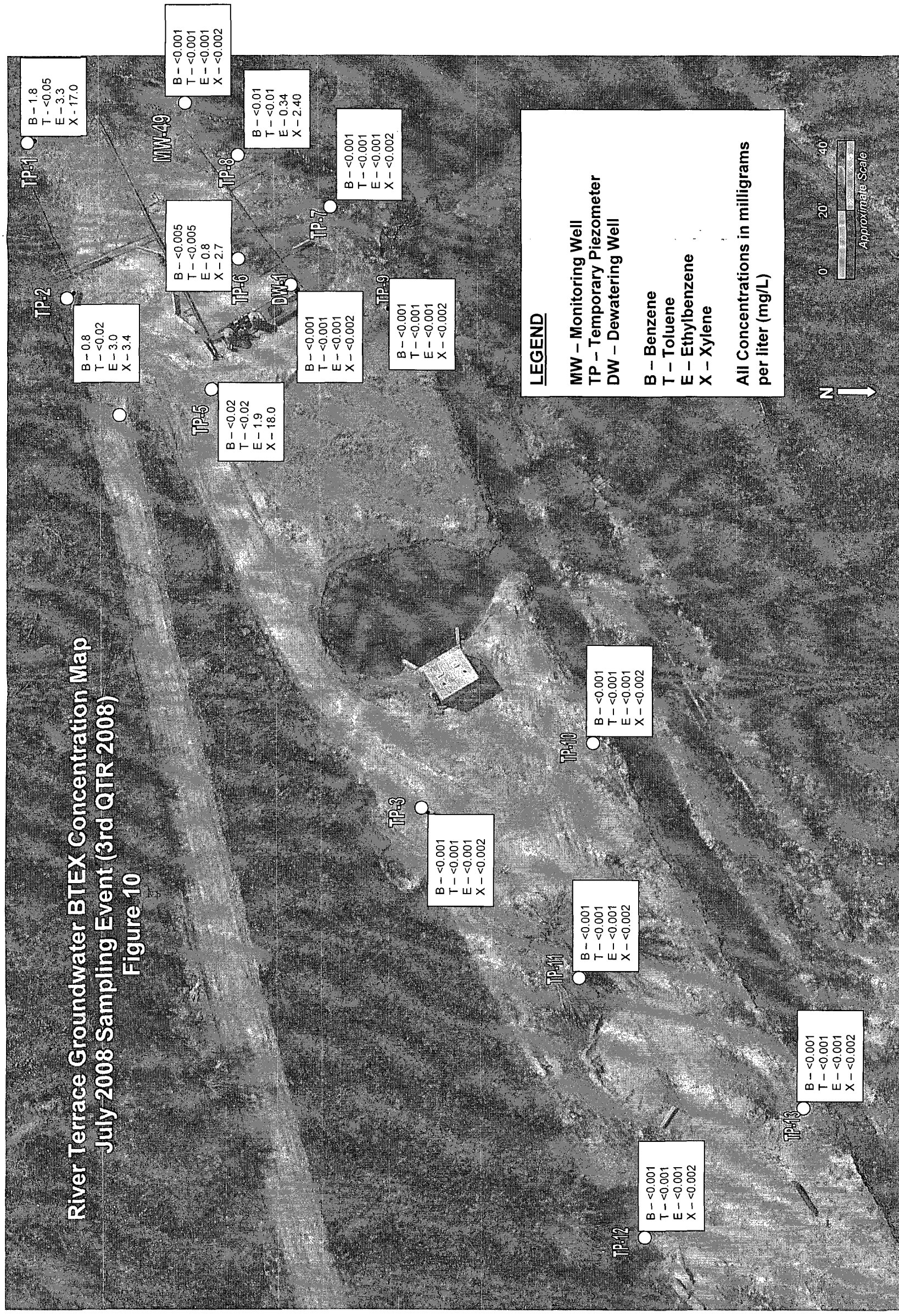
River Terrace Groundwater BTEX Concentration Map
 March 2008 Sampling Event (1st QTR 2008)
 Figure 8



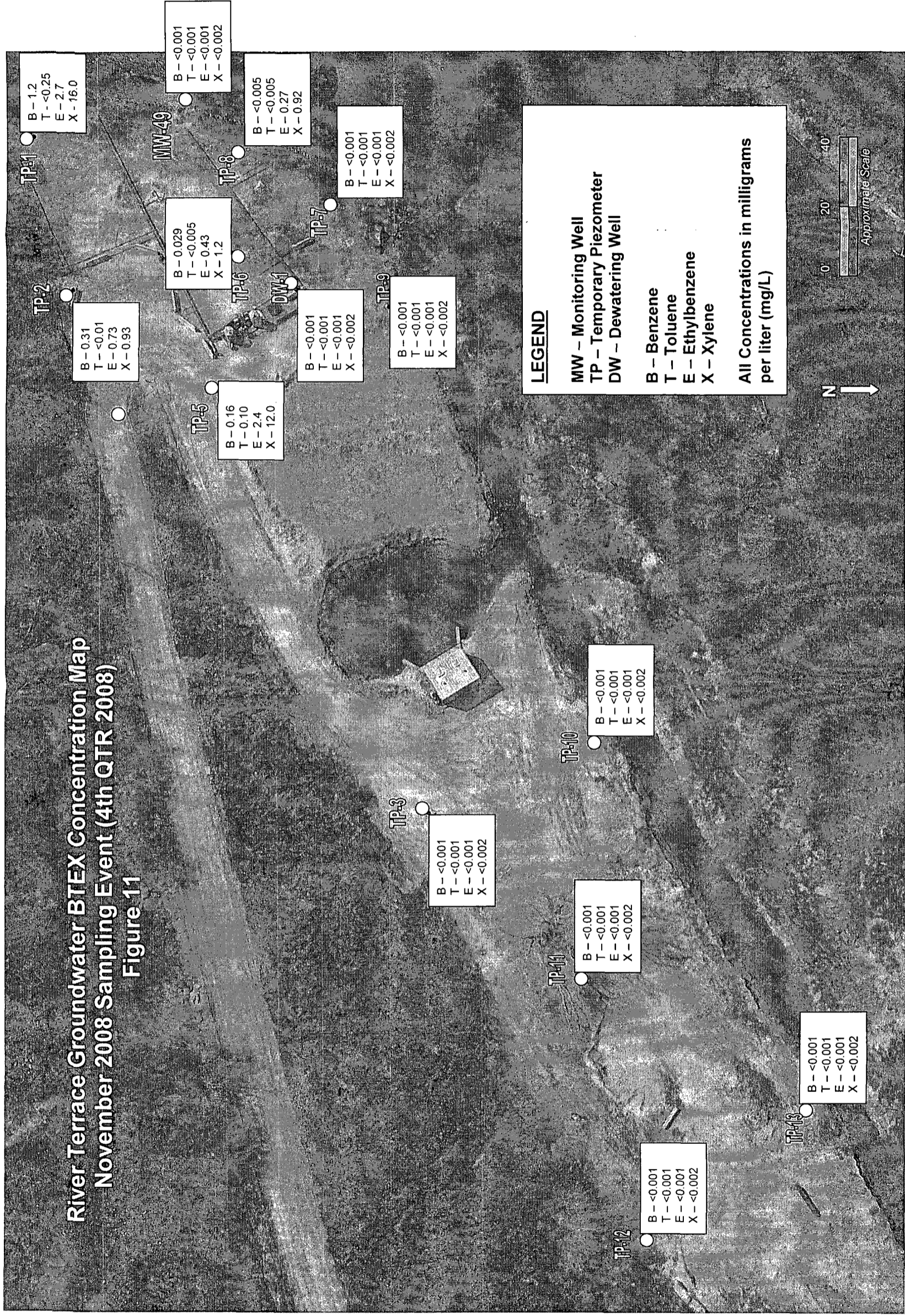
River Terrace Groundwater BTEX Concentration Map
 May 2008 Sampling Event (2nd QTR 2008)
 Figure 9



River Terrace Groundwater BTEX Concentration Map
July 2008 Sampling Event (3rd QTR 2008)
Figure 10



River Terrace Groundwater BTEX Concentration Map
November 2008 Sampling Event (4th QTR 2008)
Figure 11



Section 9.0 Field Methods

Field Methods

Soil Gas Sampling

Sampling Procedure

All water/product levels are determined to an accuracy of 0.01 foot using a Geotech Interface Meter. Injection pressure and injection flow rates are collected from all bioventing wells in which air is being injected. Soil gas samples are taken before groundwater purging and sampling.

Each well is equipped with an air-tight well cap for sample extraction through a sample port at the top of the well casing. Each well has dedicated flexible Teflon Food Grade tubing which extends through both sides of the sample port with one side continuing down into the well casing to approximately 1 foot above the water table. The other end (topside) protrudes from the cap and is available as a connector.

Before purging, pressure is measured by attaching a hand-held Magnahelic Pressure Gauge to the topside tubing.

A portable vacuum pump is used for purging and sample collection. The topside tubing is connected to the suction of the vacuum pump and three purge volumes are withdrawn from the well prior to sample collection. After sufficient purging, a Tedlar bag is attached to the tubing at the discharge end of the pump for sample collection. All samples are properly labeled and placed in a cooler for delivery to the off-site laboratory or for field measurements of vapor-phase organics

Well Purging Technique

A vacuum pump is used to remove stagnant air from the soil gas sampling assembly. Approximately three well volumes are purged from the well before sampling. Purged volumes are determined by using the following equation:

Conversion Factor X Depth to Water X 28L/ft³ X Three

The conversion factor is determined by the diameter of the well casing.

Casing	Conversion Factor
6"	0.196L/ft
4"	0.0873L/ft
2"	0.00218L/ft
1"	0.000545L/ft

Soil Gas Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative soil gas samples include:

- Interface Probe
- Vacuum Pump
- 1 Liter Tedlar Bags
- PID Meter
- RKI Eagle Meter
- Cooler to store Tedlar Bags

- Sharpie Permanent Marker
- Field Paperwork/Logsheet
- Trash container (plastic garbage bag)

Tedlar bags and tubing dedicated for each well are used for field measurements. New Tedlar bags are used for BTEX and GRO collection and analysis. After sufficient purging, samples are collected using the vacuum pump. Field measurements of vapor-phase organics, oxygen, and carbon dioxide concentrations are recorded using portable field instruments. BTEX and GRO samples are labeled immediately with location, date, time, analysis, and sampler and then put in a trash bag and placed in a cooler. The field logsheet is reviewed to verify all entries. Samples are then shipped to the laboratory. To prevent cross-contamination, procedures include dedicated tubing for each of the wells sampled as well as a five minute purge time of the vacuum pump in ambient air.

Instrument Calibration

The RKI Eagle is a portable gas detection system with sensors for oxygen, carbon dioxide, and methane. Calibration of the instrument is conducted at the beginning of each day of sampling.

The meter is turned on and allowed to warm up. Fill the dedicated Tedlar bags with known calibration gas. One bag is used for the carbon dioxide calibration and the other bag contains the oxygen and methane calibration gasses. Press and hold the AIR/▲ button until a tone sounds. The Eagle automatically sets the toxics circuits to zero and the oxygen circuit to 20.9%.

Press and hold the SHIFT /▼ button, then press the DISP/ADJ button. The calibration menu is displayed. Use the AIR/▲ and SHIFT/▼ buttons to place the prompt next to the SINGLE CALIBRATION menu option. Press the POWER/ENTER button to display the Single Calibration menu. Use the AIR/▲ or SHIFT/▼ button to place the prompt next to the channel to calibrate. Press the POWER/ENTER button. Connect the tubing from the Tedlar bag to the Eagle's probe. If necessary, use the AIR/▲ (increase) and SHIFT/▼ (decrease) buttons to adjust the reading to match the concentration listed on the calibration cylinder. Press the POWER/ENTER button to set the span value. Repeat the steps for any other channels you want to calibrate.

The MiniRae 2000 Portable VOC Monitor (PID) is calibrated at the beginning of each day of sampling. Turn on the monitor and wait for the **Ready** message display. Press and hold both (N/-) and (MODE) keys for three seconds to enter programming mode. The first menu item "**Calibrate/select Gas?**" will be displayed. Press (N/-) to scroll to **Fresh Air Cal?** And press (Y/-) to select that menu item. Clean ambient air can be used for the "fresh air" calibration. Press (Y/-) to begin the zeroing process.

After zeroing is complete, press (N/-) to scroll to the next menu item. When **Span Cal?** is displayed press (Y/-) to select that menu item. Connect the monitor to a known calibration gas cylinder (isobutylene) after the display shows **Apply gas**

now! The monitor will then perform the calibration. When calibration is completed, turn off the flow of gas, disconnect the cylinder, and exit the programming mode by pressing the **(MODE)** key once.

Groundwater Sampling

Groundwater Elevation

All water/product levels are determined to an accuracy of 0.01 foot using a Geotech Interface Meter. The technician records separate phase hydrocarbon, depth to water, and total well depth using this probe.

Water Quality/Groundwater Sampling

Prior to purging, a YSI 550A Dissolved Oxygen Probe is used to determine dissolved oxygen (DO) levels. Water quality parameters are measured using an Ultrameter 6P by the Myron L Company. Electrical conductance, oxidation-reduction potential (ORP), pH, and temperature are monitored during purging.

Well Purging Technique

At least three well volumes are purged from the well. Purge volumes are determined using the following equation:

Well Depth – Casing Height – Depth to Liquid X Conversion Factor X Three.

The conversion factor is determined by the diameter of the well casing.

<u>Casing</u>	<u>Conversion Factor</u>
6"	1.50 gal/ft
5"	1.02 gal/ft
4"	0.74 gal/ft
3"	0.367 gal/ft
2"	0.163 gal/ft

Well Sampling and Sample Handling Procedure

Equipment and supplies needed for collecting representative groundwater samples include:

- Interface Probe
- Ultrameter 6P
- YSI 550A Dissolved Oxygen Instrument
- Distilled Water
- Disposable Latex Gloves
- Disposable Bailers
- String/Twine
- Cooler with Ice
- Bottle kits with Preservatives (provided by the contract laboratory)
- Glass Filters and Syringes Jar (usually 4 oz.)
- Sharpie Permanent Marker
- Field Paperwork/Log sheet
- Two 5-gallon buckets

- Trash container (plastic garbage bag)
- Ziploc Bags
- Paper towels

Typically disposable bailers are used for purging and sampling. Each bailer holds one liter of liquid. Three well volumes can be calculated by counting the number of times a well is bailed.

All purged water is poured into a 55-gallon drum designated for sampling events.

After sufficient purging, samples are collected with the bailer and poured into the appropriate sample containers. Two people are usually utilized for sampling. Sampling takes place over a bucket to insure that spills are contained

Samples are labeled immediately with location, date, time, analysis, preservative, and sampler. Then they are put in a Ziploc bag and placed in a cooler holding sufficient ice to keep them cool. The field log sheet is reviewed to verify all entries.

Purge and Decontamination Water Disposal

The Ultrameter 6P, YSI 550A DO Probe, and the interface probe are rinsed with distilled water after every well. The rinse procedure takes place over a bucket to insure that spills are contained.

All rinse and purge water is contained and then disposed of through the refinery wastewater system.

Instrument Calibration

Calibration of the YSI 550A Dissolved Oxygen Instrument occurs at the beginning of each day of sampling. The probe is powered on and allowed to stabilize, which usually takes 15 minutes. Enter the calibration menu. The LCD will prompt you to enter the local altitude in hundreds of feet. When the proper altitude appears on the LCD, press the **ENTER** key.

The LCD will then prompt you to enter the salinity of the water you are about to analyze. After entering the correct salinity, the instrument will return to normal operation.

The Ultrameter 6P instrument calibration occurs at the beginning of each day of sampling. For Conductivity and TDS calibration, the cell is rinsed three times with a 3000 umhos/cm NaCl Standard. The cell cup is refilled with the standard. Either the **COND** or the **TDS** button is pressed and then the **CAL** button is pushed. Press the up or down arrow until the display agrees with the standard. The **CAL** button is pressed to accept the value.

The Ultrameter 6P has an electronic ORP calibration which is automatically calibrated with the 7 pH. The pH sensor well is rinsed three times with 7.0 buffer solution and then refilled again with that buffer. The **pH** button is pressed then the **CAL** button. The up or down arrow is adjusted until the display agrees with

the buffer value. The **CAL** button is pushed to accept that value. Repeat the calibration steps using an acid buffer solution and then again with a base buffer solution.

Section 10.0 Chemical Analytical Program

Hall Environmental Analysis Laboratory

QUALITY ASSURANCE PLAN

Effective Date: January 31st 2009

Revision 9.0

www.hallenvironmental.com

Control Number: 0000082

Approved By:


Nancy McDuffie
Laboratory Manager

2-5-09
Date

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Appendix C TCEQ Accreditation

Full list of approved analytes, methods, analytical techniques and fields of testing

Reserved, available upon request

Appendix D ADHS Accreditation

Full list of approved analytes, methods, analytical techniques and fields of testing

Reserved, available upon request

Appendix E NMED-DWB Certification

Reserved, available upon request

Appendix F Terms and Definitions

Reserved, available upon request

Appendix G Chain of Custody Record

Reserved, available upon request

Appendix H HEAL Forms

Analyst Ethics and Data Integrity Agreement

IDOC Certificate

ADOCP Certificate

Training Forms

Reserved, available upon request

3.0 Introduction

Purpose of Document

The purpose of this Quality Assurance Plan is to formally document the quality assurance policies and procedures of Hall Environmental Analysis Laboratory, Inc. (HEAL), for the benefit of its employees, clients, and accrediting organizations. HEAL continually implements all aspects of this plan as an essential and integral part of laboratory operations in order to ensure that high quality data is produced in an efficient and effective manner.

Objectives

The objective of HEAL is to achieve and maintain excellence in environmental testing. This is accomplished by developing, incorporating and documenting the procedures and policies specified by each of our accrediting authorities and outlined in this plan. A laboratory staff that is analytically competent, well qualified, and highly trained carries out these activities. An experienced management team, knowledgeable in their area of expertise, monitors them. Finally, a comprehensive quality assurance program governs laboratory practices and ensures that the analytical results are valid, defensible, reproducible, reconstructable and of the highest quality.

HEAL establishes and thoroughly documents its activities to ensure that all data generated and processed will be scientifically valid and of known and documented quality. Routine laboratory activities are detailed in method specific standard operating procedures (SOP). All data reported meets the applicable requirements for the specific method that is referenced, ORELAP, TCEQ, EPA, client specific requirements and/or State Bureaus. In the event that these requirements are ever in contention with each other, it is HEAL's policy to always follow the most prudent requirement available. For specific method requirements refer to HEAL's Standard Operating Procedures (SOP's), EPA methods, Standard Methods 20th edition, ASTM methods or state specific methods.

HEAL management ensures that this document is correct in terms of required accuracy, data reproducibility, and that the procedures contain proper quality control measures. HEAL management additionally ensures that all equipment is reliable, well maintained and appropriately calibrated. The procedures and practices of the laboratory are geared towards not only strictly following our regulatory requirements but also allowing the flexibility to conform to client specific specifications. Meticulous records are maintained for all samples and their respective analyses so that results are well documented and defensible in a court of law.

The HEAL Quality Assurance/Quality Control Officer (QA/QCO) and upper management are responsible for supervising and administering this quality assurance program, and ensuring each individual is responsible for its proper implementation. All HEAL management remains committed to the encouragement of excellence in analytical testing and will continue to provide the necessary resources and environment conducive to its achievement.

Policies

Understanding that quality cannot be mandated, it is the policy of this laboratory to provide an environment that encourages all staff members to take pride in the quality of their work. In addition to furnishing proper equipment and supplies, HEAL stresses the importance of continued training and professional development. Further, HEAL recognizes the time required for data interpretation. Therefore, no analyst should feel pressure to sacrifice data quality for data quantity. Each staff member must perform with the highest level of integrity and professional competence, always being alert to problems that could compromise the quality of their technical work.

Management and senior personnel supervise analysts closely in all operations. Under no circumstance is the willful act or fraudulent manipulation of analytical data condoned. Such acts must be reported immediately to HEAL management. Reported acts will be assessed on an individual basis and resulting actions could result in dismissal. The laboratory staff is encouraged to speak with lab managers or senior management if they feel that there are any undue commercial, financial, or other pressures, which might adversely affect the quality of their work; or in the event that they suspect that data quality has been compromised in any way. HEAL's Quality Assurance/Quality Control Officer is available if any analyst and/or manager wishes to anonymously report any suspected or known breaches in data integrity.

All proprietary rights and client information at HEAL (including national security concerns) are considered confidential. No information will be given out without the express verbal or written permission of the client. All reports generated will be held in the strictest of confidence.

This is a controlled document. Each copy is assigned a unique tracking number and when released to a client or accrediting agency the QA/QCO keeps the tracking number on file. This document is reviewed on an annual basis to ensure that it is valid and representative of current practices at HEAL.

4.0 Organization and Responsibility

Company

HEAL is accredited in accordance with the 2003 NELAC standard (see NELAC accredited analysis list in the appendix), through ORELAP and TCEQ and by the Arizona Department of Health Services. Additionally, HEAL is qualified as defined under the State of New Mexico Water Quality Control Commission regulations and the New Mexico State Drinking Water Bureau. HEAL is a locally owned small business that was established in 1991. HEAL is a full service environmental analysis laboratory with analytical capabilities that include both organic and inorganic methodologies and has performed analyses of soil, water, air as well as various other matrices for many sites in the region. HEAL's client base includes local, state and federal agencies, private consultants, commercial industries as well as individual homeowners. HEAL has performed as a subcontractor to the state of New Mexico and to the New Mexico Department of Transportation. HEAL has been acclaimed by its customers as producing quality results and as being adaptive to client-specific needs.

The laboratory is divided into an organic section, and an inorganic section. Each section has a designated manager/technical director. The technical directors report directly to the laboratory manager, who oversees all operations.

Certifications

ORELAP – NELAC Oregon Primary accrediting authority.

TCEQ – NELAC Texas Secondary accrediting authority.

The Arizona Department of Health Services

The New Mexico Drinking Water Bureau

See appendix B-E for copies of current licenses and licensed parameters, or refer to our current list of certifications online at www.hallenvironmental.com.

Personnel

HEAL management ensures the competence of all who operate equipment, perform environmental tests, evaluate results, and sign test reports. Personnel performing specific tasks shall be qualified on the basis of appropriate education, training, experience and /or demonstrated skills.

All personnel shall be responsible for complying with HEALs quality assurance/quality control requirements that pertain to their technical function. Each technical staff member must have a combination of experience and education to adequately demonstrate specific knowledge of their

particular function and a general knowledge of laboratory operations, test methods, quality assurance/quality control procedures and records management.

All employees training certificates and diplomas are kept on file with demonstrations of capability for each method they perform. An Organizational Chart can be found in Appendix A.

Laboratory Director

The Laboratory Director is responsible for overall technical direction and business leadership of HEAL. The Laboratory Manager, the Project Manager and Quality Assurance/Quality Control Officer report directly to the Laboratory Director. Someone with a minimum of 7 years of directly related experience and a bachelor's degree in a scientific or engineering discipline should fill this position.

Laboratory Manager/Lead Technical Director

The Laboratory Manager shall exercise day-to-day supervision of laboratory operations for the appropriate fields of accreditation and reporting of results. The Laboratory Manager shall be experienced in the fields of accreditation for which the laboratory is approved or seeking accreditation. The Laboratory Manager shall certify that personnel with appropriate educational and/or technical background perform all tests for which HEAL is accredited. Such certification shall be documented.

The Laboratory Manager shall monitor standards of performance in quality control and quality assurance and monitor the validity of the analyses performed and data generated at HEAL to assure reliable data.

The Laboratory Manager is responsible for the daily operations of the laboratory. The Laboratory Manager is the lead technical director of the laboratory and in conjunction with the section technical directors is responsible for coordinating activities within the laboratory with the overall goal of efficiently producing high quality data within a reasonable time frame.

In events where employee scheduling or current workload is such that new work cannot be incorporated, without missing hold times, the Laboratory Manager has authority to modify employee scheduling, re-schedule projects or, when appropriate, allocate the work to approved subcontracting laboratories.

Additionally, the laboratory manager reviews and approves new analytical procedures and methods, and performs a final review of most analytical results. The Laboratory Manager provides technical support to both customers and HEAL staff.

The Laboratory Manager also observes the performance of supervisors to ensure good laboratory practices and proper techniques are being taught and utilized, assisting in overall quality control implementation, and strategic planning for the future of the company. Other duties include assisting in establishing laboratory policies which lead to the fulfillment of requirements for various certification programs, assuring that all Quality

Assurance and Quality Control documents are reviewed and approved, and assisting in conducting Quality Assurance Audits.

The laboratory manager addresses questions or complaints that cannot be answered by the section managers.

The Laboratory Manager shall have a bachelor's degree in a chemical, environmental, biological sciences, physical sciences or engineering field, and at least five years of experience in the environmental analysis of representative inorganic and organic analytes for which the laboratory seeks or maintains accreditation.

Quality Assurance Quality Control Officer

The Quality Assurance/Quality Control Officer (QA/QCO) serves as the focal point for QA/QC and shall be responsible for the oversight and/or review of quality control data. The QA/QCO functions independently from laboratory operations and shall be empowered to halt unsatisfactory work and/or prevent the reporting of results generated from an out-of-control measurement system. The QA/QCO shall objectively evaluate data and perform assessments without any outside/managerial influence. The QA/QCO shall have direct access to the highest level of management at which decisions are made on laboratory policy and/or resources. The QA/QCO shall notify laboratory management of deficiencies in the quality system in periodic, independent reports.

The QA/QCO shall have general knowledge of the analytical test methods, for which data review is performed, have documented training and/or experience in QA/QC procedures and in the laboratory's quality system. The QA/QCO will have a minimum of a BS in a scientific or related field and a minimum of three years of related experience.

The QA/QCO shall schedule and conduct internal audits as per the Internal Audit SOP at least annually, monitor and trend Corrective Action Reports as per the Data Validation SOP, periodically review control charts for out of control conditions and initiate any appropriate corrective actions.

The QA/QCO shall oversee the analysis of proficiency testing in accordance with our standards and monitor any corrective actions issued as a result of this testing.

The QA/QCO reviews all standard operating procedures and statements of work in order to assure their accuracy and compliance to method and regulatory requirements.

The QA/QCO shall be responsible for maintaining and updating this quality manual.

Business/Project Manager

The role of the business/project manager is to act as a liaison between HEAL and our clients. The project manager reviews reports, updates clients on the status of projects in-house, prepares quotations for new work, and is responsible for HEALs marketing effort.

All new work is assessed by the project manager and reviewed with the other managers so as to not exceed the laboratories capacity. In events where employee scheduling or current workload is such that new work cannot be incorporated without missing hold times, the Project Manager has authority to re-schedule projects.

It is also the duty of the project manager to work with the Laboratory Manager and QA/QCO to insure that before new work is undertaken the resources required and accreditations requested are available to meet the client's specific needs.

Additionally, the Project Manager can initiate the review of the need for new analytical procedures and methods, and performs a final review of some analytical results. The Project Manager provides technical support to customers. Someone with a minimum of 2 years of directly related experience and a bachelor's degree in a scientific or engineering discipline should fill this position.

Section Manager/Technical Directors

The Section Manager/Technical Directors are full-time members of the staff at HEAL who exercise day-to-day supervision of laboratory operations for the appropriate fields of accreditation and reporting of results for their department within HEAL. A Technical Director's duties shall include, but not be limited to, monitoring standards of performance in quality control and quality assurance; monitoring the validity of the analyses performed and the data generated in their sections to ensure reliable data, overseeing training and supervising departmental staff, schedule incoming work for their sections and monitor laboratory personnel to ensure that proper procedures and techniques are being utilized. They supervise and implement new Quality Control procedures as directed by the QA/QCO, update and maintain quality control records including, but not limited to, training forms, IDOCs, ADOCPs, MDLs and evaluate laboratory personnel in their Quality Control activities. In addition technical directors are responsible for upholding the spirit and intent of HEAL's data integrity procedures.

They are the technical director of the associated section and review analytical data to acknowledge that data meets all criteria set forth for good Quality Assurance practices. Someone with a minimum of 2 years of experience in the environmental analysis of representative analytes for which HEAL seeks or maintains accreditation and a bachelor's degree in a scientific or related discipline should fill this position.

Health and Safety / Chemical Hygiene Officer

Refer to the most recent version of the Health and Safety and Chemical Hygiene Plans for the rolls, responsibilities and basic requirements of the Health and Safety Officer (H&SO) and the Chemical Hygiene Officer (CHO). These jobs can be executed by the same employee.

Chemist I, II and III

Chemists are responsible for the analysis of various sample matrices including, but not limited to, solid, aqueous, and air as well as the generation of high quality data in accordance with the HEAL SOPs and QA/QC guidelines in a reasonable time as prescribed by standard turnaround schedules or as directed by the Section Manager or Laboratory Manager.

Chemists are responsible for making sure all data generated is entered in the database in the correct manner and the raw data is reviewed, signed and delivered to the appropriate peer for review. A Chemist reports daily to the section manager and will inform them as to material needs of the section specifically pertaining to the analyses performed by the chemist. Additional duties may include preparation of samples for analysis, maintenance of lab instruments or equipment, cleaning and providing technical assistance to lower level laboratory staff.

The senior chemist in the section may be asked to perform supervisory duties as related to operational aspects of the section. The chemist may perform all duties of a lab technician.

The position of Chemist is a full or part time hourly position and is divided into three levels, Chemist I, II, and III. All employees hired into a Chemist position at HEAL must begin as a Chemist I and remain there at a minimum of three months regardless of their education and experience. Chemist I must have a minimum of an AA in a related field or equivalent experience (equivalent experience means years of related experience can be substituted for the education requirement). A Chemist I is responsible for analysis, instrument operation and data reduction. Chemist II must have a minimum of an AA in a related field or equivalent experience and must have documented and demonstrated aptitude to perform all functions of a Chemist II. A Chemist II is responsible for the full analysis of their test methods, routine instrument maintenance, purchase of consumables as dictated by their Technical Director, advanced data reduction and basic data review. Chemist II may also assist Chemist III in method development and as dictated by their Technical Director may be responsible for the review and/or revision of their method specific SOPs. Chemist III must have Bachelors degree or equivalent experience and must have documented and demonstrated aptitude to perform all functions of a Chemist III. Chemist III are responsible for all tasks completed by a Chemist I and II as well as advanced data review, non-routine instrument maintenance, assisting their technical director in basic supervisory duties and method development.

Laboratory Technician

A laboratory technician is responsible for providing support in the form of sample preparation, basic analysis, general laboratory maintenance, glassware washing, chemical inventories and sample kit preparation. This position can be filled by someone without the education and experience necessary to obtain a position as a chemist.

Sample Control Manager

The sample control manager is responsible for receiving samples and reviewing the sample login information after it has been entered into the computer. The sample control manager also checks the samples against the chain-of-custody for any sample and/or labeling discrepancies prior to distribution.

The sample control manager is responsible for sending out samples to the sub-contractors along with the review and shipping of field sampling bottle kits. The sample control manager acts as a liaison between the laboratory and field sampling crew to ensure that the appropriate analytical test is assigned. If a discrepancy is noted the sample control manager or sample custodian will contact the customer to resolve any questions or problems. The sample control manager is an integral part the customer service team.

This position should be filled by someone with a high school diploma and a minimum of 2 years of related experience and can also be filled by a senior manager.

Sample Custodians

Sample Custodians work directly under the Sample Control Manager. They are responsible for sample intake into the laboratory and into the LIMS. Sample Custodians take orders from our clients and prepare appropriate bottle kits to meet the client's needs. Sample Custodians work directly with the clients in properly labeling and identifying samples as well as properly filling out legal COCs. When necessary, Sample Custodians contact clients to resolve any questions or problems associated with their samples. Sample Custodians are responsible for distributing samples throughout the laboratory and are responsible for notifying analysts of special circumstances such as short holding times or improper sample preservation upon receipt.

Delegations in the Absence of Key Personnel

Planned absences shall be preceded by notification to the Laboratory Manager. The appropriate staff members shall be informed of the absence. In the case of unplanned absences, the organizational superior shall either assume the responsibilities and duties or delegate the responsibilities and duties to another appropriately qualified employee.

In the event that the Laboratory Manager is absent for a period of time exceeding fifteen consecutive calendar days, another full-time staff member meeting the basic qualifications and competent to temporarily perform this function will be designated. If this absence exceeds thirty-five consecutive calendar days, HEAL will notify ORELAP in writing of the absence and the pertinent qualifications of the temporary laboratory manager.

Laboratory Personnel Qualification and Training

All personnel joining HEAL shall undergo orientation and training. During this period the new personnel shall be introduced to the organization and their responsibilities, as well as

the policies and procedures of the company. They shall also undergo on the job training and shall work with trained staff. They will be shown required tasks and be observed while performing them.

When utilizing staff undergoing training, appropriate supervision shall be dictated and overseen by the appropriate section technical director. Prior to analyzing client samples, a new employee, or an employee new to a procedure, must meet the following basic requirements. The SOP and Method for the analysis must be read and signed by the employee indicating that they read, understood and intend to comply with the requirements of the documents. The employee must undergo documented training. Training is conducted by a senior analyst familiar with the procedure and overseen by the section Technical Director. This training is documented by any means deemed appropriate by the trainer and section Technical Director, and kept on file in the employees file located in the QA/QCO's office. The employee must perform a successful Initial Demonstration of Proficiency (IDOC). See Appendix H for the training documents and checklists utilized at HEAL to ensure that all of these requirements are met. Once all of the above requirements are met it is incumbent upon the section Technical Director to determine at which point the employee can begin to perform the test unsupervised. A Certification to Complete Work Unsupervised (see Appendix H) is then filled out by the employee and technical director.

All IDOCs shall be documented through the use of the certification form which can be found in Appendix H. IDOCs are performed by analyzing four Laboratory Control Spikes (LCSs). Using the results of the LCSs the mean recovery is calculated in the appropriate reporting units and the standard deviations of the population sample (n-1) (in the same units) as well as the relative percent difference for each parameter of interest. When it is not possible or pertinent to determine mean and standard deviations HEAL assesses performance against established and documented criteria dictated in the method SOP. The mean and standard deviation are compared to the corresponding acceptance criteria for precision and accuracy in the test method (if applicable) or in laboratory-generated acceptance criteria. In the event that the HEAL SOP or test method fail to establish the pass/fail criteria the default limits of $\pm 20\%$ for calculated recovery and $<20\%$ relative percent difference based on the standard deviation will be utilized. If all parameters meet the acceptance criteria, the IDOC is successfully completed. If any one of the parameters do not meet the acceptance criteria, the performance is unacceptable for that parameter and the analyst must either locate and correct the source of the problem and repeat the test for all parameters of interest or repeat the test for all parameters that failed to meet criteria. Repeat failure, however, confirms a general problem with the measurement system. If this occurs the source of the problem must be identified and the test repeated for all parameters of interest.

New employees that do not have prior analysis experience will not be allowed to perform analysis until they have demonstrated attention to detail with minimal errors in the assigned tasks. To ensure a sustained level of quality performance among staff members, continuing demonstration of capability shall be performed at least once a year. These are as an Annual Documentation of Continued Proficiency (ADOCP).

At least once per year an ADOCP must be completed by: the acceptable performance of a blind sample (this is typically done using a PT sample but can be a single blind sample to the analyst), by performing another IDOC, or by summarizing the data of four consecutive

laboratory control samples with acceptable levels of precision and accuracy (these limits are those currently listed in the LIMS for an LCS using the indicated test method.) ADOCPs are documented using a standard form and are kept on file in each analysts employee folder.

Each new employee shall be provided with data integrity training as a formal part of their new employee orientation. Each new employee will sign an ethics and data integrity agreement to ensure that they understand that data quality is our main objective. Every HEAL employee recognizes that although turn around time is important, quality is put above any pressure to complete the task expediently. Analysts are not compensated for passing QC parameters nor are incentives given for the quantity of work produced. Data Integrity and Ethics training are performed on an annual basis in order to remind all employees of HEAL's policy on data quality. Employees are required to understand that any infractions of the laboratory data integrity procedures will result in a detailed investigation that could lead to very serious consequences including immediate termination, debarment or civil/criminal prosecution.

Training for each member of HEALs technical staff is further established and maintained through documentation that each employee has read, understood, and is using the latest version of this Quality Assurance Manual. Training courses or workshops on specific equipment, analytical techniques or laboratory procedures are documented through attendance sheets, certificates of attendance, training forms, or quizzes. This training documentation is located in either analyst specific employee folders in the QA/QCO Office or in the current years group training folder, also located in the QA/QCO Office. On the front of all methods, SOPs and procedures for HEAL there is a signoff sheet that is signed by all pertinent employees, indicating that they have read, understood and agreed to perform the most recent version of the document.

5.0 Receipt and Handling of Samples

Sampling

Procedures

HEAL does not provide field sampling for any projects. Sample kits are prepared and provided for clients upon request. The sample kits contain the appropriate sampling containers (with a preservative when necessary), labels, blue ice, a cooler, chain-of-custody forms, plastic bags, bubble wrap, and any special sampling instructions. Sample kits are reviewed prior to shipment for accuracy and completeness.

Containers

Containers which are sent out for sampling are purchased by HEAL from a commercial source. Glass containers are certified "EPA Cleaned" QA level 1. Plastic containers are certified clean when required. These containers are received with a Certificate of Analysis verifying that the containers have been cleaned according to the EPA wash procedure. Containers are used once and discarded. If the samples are collected and stored in inappropriate containers the laboratory may not be able to accurately quantify the amount of the desired components. In this case re-sampling may be required.

Preservation

If sampling for an analyte(s) requires preservation, the sample custodians fortify the containers prior to shipment to the field, or provide the preservative for the sampler to add in the field. The required preservative is introduced into the vials in uniform amounts and done so rapidly to minimize the risk of contamination. Vials that contain a preservative are labeled appropriately. If the samples are stored with inappropriate preservatives the laboratory may not be able to accurately quantify the amount of the desired components. In this case re-sampling may be required.

Refer to the current Login SOP and/or the current price book for detailed sample receipt and handling procedures, appropriate preservation and holding time requirements.

Sample Custody

Chain-of-Custody Form

A Chain-of-Custody (CoC) form is used to provide a record of sample chronology from the field to receipt at the laboratory. HEALs CoC contains the client's name, address, phone and fax numbers, the project name and number, the project manager's name,

and the field sampler's name. It also identifies the date and time of sample collection, sample matrix, field sample ID number, number/volume of sample containers, sample temperature upon receipt, and any sample preservative information.

There is also a space to record the HEAL ID number assigned to samples after they are received. Next to the sample information is a space for the client to indicate the desired analyses to be performed. There is a section for the client to indicate the data package level as well as any accreditation requirements. Finally, there is a section to track the actual custody of the samples. The custody section contains lines for signatures, dates and times when samples are relinquished and received. The CoC form also includes a space to record special sample related instructions, sampling anomalies, time constraints, and any sample disposal considerations.

It is paramount that all CoCs arrive at HEAL complete and accurate so that the samples can be processed and allocated for testing in a timely and efficient manor. A sample chain-of-custody form can be found in Appendix G or on line at www.hallenvironmental.com.

Receiving Samples

Samples are received by authorized HEAL personnel. Upon arrival, the CoC is compared to the respective samples. After the samples and CoC have been determined to be complete and accurate, the sampler signs over the CoC. The HEAL staff member in turn signs the chain-of-custody, also noting the current date, time and sample temperature. This relinquishes custody of the samples from the sampler and delegates sample custody to HEAL. The third (pink) copy of the CoC form is given to the person who has relinquished custody of the samples.

Logging in Samples and Storage

Standard Operating Procedures have been established for the receiving and tracking of all samples (refer to the current HEAL Login SOP). These procedures ensure that samples are received and properly logged into the laboratory, and that all associated documentation, including chain of custody forms, are complete and consistent with the samples received. Each sample set is given a unique HEAL tracking ID number. Individual sample locations within a defined sample set are given a unique sample ID suffix-number. Labels with the HEAL numbers, and tests requested, are generated and placed on their respective containers. The pH of preserved, non-volatile samples is checked and noted if out of compliance. Due to the nature of the samples, the pHs of volatiles samples are checked after analysis. Samples are reviewed prior to being distributed for analysis.

Samples are distributed for analysis based upon the requested tests. In the event that sample volume is limited and different departments at HEAL are required to share the

sample, volatile work takes precedence and will always be analyzed first before the sample is sent to any other department for analysis.

Each project (sample set) is entered into the Laboratory Information Management System (LIMS) with a unique ID that will be identified on every container. The ID tag includes the Lab ID, Client ID, date and time of collection, and the analysis/analyses to be performed. The LIMS continually updates throughout the lab. Therefore, at any time, an analyst or manager may inquire about a project and/or samples status. For more information about the login procedures, refer to the Sample Login SOP.

Disposal of Samples

Samples are held at HEAL for a minimum of thirty days and then transferred to the HEAL warehouse for disposal. Analytical results are used to characterize their respective sample contamination level(s) so that the proper disposal can be performed. These wastes will be disposed of according to their hazard as well as their type and level of contamination. Refer to the Hall Environmental Analysis Laboratory Chemical Hygiene Plan and current Sample Disposal SOP for details regarding waste disposal.

Waste drums are provided by an outside agency. These drums are removed by the outside agency and disposed of in a proper manner.

The wastes that are determined to be non-hazardous are disposed of as non-hazardous waste in accordance with the Chemical Hygiene Plan and Sample Disposal SOP.

6.0 Analytical Procedures

All analytical methods used at HEAL incorporate necessary and sufficient Quality Assurance and Quality Control practices. A Standard Operating Procedure (SOP) is used for each method to provide the necessary criteria to yield acceptable results. These procedures are reviewed at least annually and revised as necessary and are attached as a pdf file in the Laboratory Information Management System (LIMS) for easy access by each analyst. The sample is often consumed or altered during the analytical process. Therefore, it is important that each step in the analytical process be correctly followed in order to yield valid data.

When unforeseen problems arise, the analyst, technical director, and, when necessary, laboratory manager meet to discuss the factors involved. The analytical requirements are evaluated and a suitable corrective action or resolution is established. The client is notified in the case narrative with the final report or before, if the validity of their result is in question.

List of Procedures Used

Typically, the procedures used by HEAL are EPA approved methodologies or 20th edition Standard Methods. However, proprietary methods for client specific samples, are sometimes used. The following tables list EPA and Standard Methods Method numbers with their corresponding analytes and/or instrument classification.

Methods Utilized at HEAL

Methodology	Title of Method
120.1	"Conductance(Specific Conductance, μ ohms at 25 ° C)"
180.1	"Turbidity (Nephelometric)"
200.2	"Sample Preparation Procedure For Spectrochemical Determination of Total Recoverable Elements"
200.7	"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Atomic Emission Spectrometry"
245.1	"Mercury (Manual Cold Vapor Technique)"
300.0	"Determination of Inorganic Anions by Ion Chromatography"
413.2	"Oil and Grease"
418.1	"Petroleum Hydrocarbons (Spectrophotometric, Infrared)"
420.3	"Phenolics (Spectrophotometric, MBTH With Distillation)"
504.1	"EDB, DBCP and 123TCP in Water by Microextraction and Gas Chromatography"

505	"Analysis of Organohalide Pesticides and Commercial Polychlorinated Biphenyl (PCB) Products in Water by Microextraction and Gas Chromatography"
515.1	"Determination of Chlorinated Acids in Water by Gas Chromatography with an Electron Capture Detector"
524.2	"Measurement of Purgeable Organic Compounds in Water by Capillary Column Gas Chromatography/Mass Spectrometry"
531.1	"Measurement of N-Methylcarbamoyloximes and N-Methylcarbamates in Water by Direct Aqueous Injection HPLC with Post Column Derivatization"
547	"Determination of Glyphosate in Drinking Water by Direct-Aqueous Injection HPLC, Post-Column Derivatization, and Fluorescence Detection"
552.1	"Determination of Haloacetic Acids and Dalapon in Drinking Water by Ion-Exchange Liquid-Solid Extraction and Gas Chromatography with an Electron Capture Detector"
1311	"Toxicity Characteristic Leaching Procedure"
1311ZHE	"Toxicity Characteristic Leaching Procedure"
3005A	"Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy"
3010A	"Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP Spectroscopy"
3050B	"Acid Digestion of Sediment, Sludge, and Soils"
3510C	"Separatory Funnel Liquid-Liquid Extraction"
3540	"Soxhlet Extraction"
3545	"Pressurized Fluid Extraction(PFE)"
3665	"Sulfuric Acid/Permanganate Cleanup"
5030B	"Purge-and-Trap for Aqueous Samples"
5035	"Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples"
6010B	"Inductively Coupled Plasma-Atomic Emission Spectrometry"
7470A	"Mercury in Liquid Waste (Manual Cold-Vapor Technique)"
7471A	"Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)"
8021B	"Aromatic and Halogenated Volatiles By Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors"
8015B	"Nonhalogenated Volatile Organics by Gas Chromatography" (Gasoline Range and Diesel Range Organics)

8015AZ	"C10-C32 Hydrocarbons in Soil-8015AZ"
8081A	"Organochlorine Pesticides by Gas Chromatography"
8082	"Polychlorinated Biphenyls (PCBs) by Gas Chromatography"
8260B	"Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)"
8270C	"Semivolatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS)"
8310	"Polynuclear Aromatic Hydrocarbons"
9045C	"Soil and Waste pH"
9056	"Determination of Inorganic Anions by Ion Chromatography"
9060	"Total Organic Carbon"
9067	"Phenolics (Spectrophotometric, MBTH With Distillation)"
9095	Paint Filter
Walkley/Black	FOC/TOC WB
SM2320 B	"Alkalinity"
SM2540 B	"Total Solids Dried at 103-105° C"
SM2540 C	"Total Dissolved Solids Dried at 180° C"
SM2540 D	"Total Suspended Solids Dried at 103-105° C"
SM 3500 Fe+2	Ferrous Iron
SM4500-H+B	"pH Value"
SM4500-NH3 C	"4500-NH3" Ammonia
SM4500-Norg C	"4500-Norg" Total Kjeldahl Nitrogen (TKN)
SM4500-P B	"4500-P" Total Phosphorous
SM4500-S2 F	"4500-S2" Sulfide
SM5310 B	"5310" Total Organic Carbon (TOC)

Criteria for Standard Operating Procedures

HEAL has Standard Operating Procedures (SOPs) for each of the test methods listed above. These SOPs are based upon the listed methods and detail the specific procedure and equipment utilized as well as the quality requirements necessary to prove the integrity of the data. SOPs are reviewed or revised every twelve months or sooner if necessary. The review/revision is documented in the Master SOP Logbook filed in the QA/QC Office. All SOPs are available in the LIMS linked under the specific test method. Administrative SOPs, which are not linked in the LIMS are available on desktops throughout the laboratory in the link to administrative-SOPs folder.

Each HEAL test method SOP shall include or reference the following topics where applicable:

- Identification of the test method;
- Applicable matrix or matrices;
- Limits of detection and quantitation;
- Scope and application, including parameters to be analyzed;
- Summary of the test method;
- Definitions;
- Interferences;
- Safety;
- Equipment and supplies;
- Reagents and standards;
- Sample collection, preservation, shipment and storage;
- Quality control parameters;
- Calibration and standardization;
- Procedure;
- Data analysis and calculations;
- Method performance;
- Pollution prevention;
- Data assessment and acceptance criteria for quality control measures;
- Corrective actions for out-of-control data;
- Contingencies for handling out-of-control or unacceptable data;
- Waste management;
- References; and
- Any tables, diagrams, flowcharts and validation data.

7.0 Calibration

All equipment and instrumentation used at HEAL are operated, maintained and calibrated according to manufacturers guidelines, as well as criteria set forth in applicable analytical methodology. Personnel who have been properly trained in their procedures perform operation and calibration. Brief descriptions of the calibration processes for our major laboratory equipment and instruments are found below.

Thermometers

The thermometers in the laboratory are used to measure the temperatures of the refrigerators/freezers, ovens, water baths, hot blocks, ambient laboratory conditions, TCLP Extractions, digestion blocks and samples at the time of log-in. All NIST traceable thermometers are either removed from use upon their documented expiration date or they are checked annually with a NIST certified thermometer and a correction factor is noted on each thermometer log. See the most current Login SOP for detailed procedures on this calibration procedure.

Dickson Data Loggers are used to record sample and standard storage refrigerators over the weekend when the appropriate staff is not available to record the temperatures. These data loggers are shipped back to the manufacturer once a year to be re calibrated.

Refrigerators/Freezers

Each laboratory refrigerator or freezer contains a thermometer capable of measuring to a minimum precision of 1°C. The thermometers are kept with the bulb immersed in liquid. Each workday, the temperatures of the refrigerators are recorded in a designated logbook to insure that the refrigerators are within the required designated range. Samples are stored separately from the standards to reduce the risk of contamination.

See the current catastrophic Failure SOP for the procedure regarding how to handle failed refrigerators or freezers.

Ovens

The ovens contain thermometers graduated by 1° C. The ovens are calibrated quarterly against NIST thermometers and checked daily as required and in which ever way is dictated by or appropriate for the method in use.

Analytical and Table Top Balances

The table top balances are capable of weighing to a minimum precision of 0.01 grams. The analytical balances are capable of weighing to a minimum precision of 0.0001 grams. Records are kept of daily calibration checks for the balances in use. Working weights are used in these checks. The balances are annually certified by an outside source and the certifications are on file with the QA/QCO.

Balances, unless otherwise indicated by method specific SOPs, will be checked daily with at least two weights that will bracket the working range of the balance for the day. Daily balance checks will be done using working weights that are calibrated annually against Class S weights. Class S weights are calibrated as required by an external provider. The Class S weights are used once a year or more frequently if required, to assign values to the Working Weights. During the daily balance checks the working weights are compared to their assigned values and must pass within 5% of their assigned value in order to validate the calibration of the balance. The assigned values for the working weights, as well as the daily checks, are recorded in the balance logbook for each balance.

Instrument Calibration

An instrument calibration is the relationship between the known concentrations of a set of calibration standards introduced into an analytical instrument and the measured response they produce. Calibration curve standards are a prepared series of aliquots at various known concentrations levels from a primary source reference standard. Specific mathematical types of calibration techniques are outlined in SW-846 8000B. The entire initial calibration must be performed prior to sample analyses.

The lowest standard in the calibration curve must be at or below the required reporting limit.

Refer to the current SOP to determine the minimum requirement for calibration points.

Most compounds tend to be linear and a linear approach should be favored when linearity is suggested by the calibration data. Non-linear calibration should be considered only when a linear approach cannot be applied. It is not acceptable to use an alternate calibration procedure when a compound fails to perform in the usual manner. When this occurs it is indicative of instrument issues or operator error.

If a non-linear calibration curve fit is employed, a minimum of six calibration levels must be used for second-order (quadratic) curves.

When more than 5 levels of standards are analyzed in anticipation of using second-order calibration curves, all calibration points MUST be used regardless of the calibration option employed. The highest or lowest calibration point may be excluded for the purpose of narrowing the calibration range, and meeting the requirements for a specific calibration option. Otherwise, unjustified exclusion of calibration data is expressly forbidden.

Analytical methods vary in QC acceptance criteria. HEAL follows the method specific guidelines for QC acceptance. The specific acceptance criteria are outlined in the analytical methods and its corresponding SOP.

pH Meter

The pH meter measures to a precision of 0.01 pH units. The pH calibration logbook contains the calibration before each use, or each day, if used more than once per day. It is calibrated using a minimum of 3 certified buffers. Also available with the pH meter is a magnetic stirrer with a temperature sensor. See the current pH SOP (SM4500 H+ B) for specific details regarding calibration of the pH probe.

Other Analytical Instrumentation and Equipment

The conductivity probe is calibrated as needed and checked daily when in use.

Eppendorf (or equivalent brands) pipettes are checked gravimetrically prior to use.

Standards

All of the source reference standards used are ordered from a reliable commercial vendor. A Certificate of Analysis (CoA), which verifies the quality of the standard, accompanies the standards from the vendor. The Certificates of Analysis are dated and stored on file by the Technical Directors or their designee. These standards are traceable to the National Institute of Standards (NIST). When salts are purchased and used as standards the certificate of purity must be obtained from the vendor and filed with the CoAs.

All standard solutions, calibration curve preparations, and all other quality control solutions are labeled in a manner that can be traced back to the original source reference standard. All source reference standards are entered into the LIMS with an appropriate description of the standard. Dilutions of the source reference standard (or any mixes of the source standards) are fully tracked in the LIMS. Standards are labeled with the date opened for use, and an expiration date.

As part of the quality assurance procedures at HEAL, analysts strictly adhere to manufacture recommendations for storage times/expiration dates and policies of analytical standards and quality control solutions.

Reagents

HEAL ensures that the reagents used are of acceptable quality for their intended purpose. This is accomplished by ordering high quality reagents and adhering to good laboratory

practices so as to minimize contamination or chemical degradation. All reagents must meet any specifications noted in the analytical method. Refer to the current Purchase of Consumables SOP for details on how this is accomplished and documented.

Upon receipt, all reagents are assigned a separate ID number, and logged into the LIMS. All reagents shall be labeled with the date received into the laboratory and again with the date opened for use. Recommended shelf life shall be documented and controlled. Dilutions or solutions prepared shall be clearly labeled, dated, and initialed. These solutions are traceable back to their primary reagents.

All gases used with an instrument shall meet specifications of the manufacturer. All safety requirements that relate to maximum and/or minimum allowed pressure, fitting types, and leak test frequency, shall be followed. When a new tank of gas is placed in use, it shall be checked for leaks and the date put in use will be written in the instrument maintenance logbook.

HEAL continuously monitors the quality of the reagent water and provides the necessary indicators for maintenance of the purification systems in order to assure that the quality of laboratory reagent water meets established criteria for all analytical methods.

Reagent blank samples are also analyzed to ensure that no contamination is present at detectable levels. The frequency of reagent blank analysis is typically the same as calibration verification samples. Refrigerator storage blanks are stored in the volatiles refrigerator for a period of one week and analyzed and replaced once a week.

8.0 Maintenance

Maintenance logbooks are kept for each major instrument and all support equipment in order to document all repair and maintenance. In the front of the logbook, the following information is included:

- Unique name of the item or equipment
- Manufacturer
- Type of Instrument
- Model Number
- Serial Number
- Date received and date placed into service
- Location of Instrument
- Condition of instrument upon receipt

For routine maintenance, the following information shall be included in the log:

- Maintenance Date
- Maintenance Description
- Maintenance Performed by Initials

A manufacturer service agreement (or equivalent) covers most major instrumentation to assure prompt and reliable response to maintenance needs beyond HEAL instrument operator capabilities.

Refer to the current Maintenance and Troubleshooting SOP for each section in the laboratory for further information.



9.0 Data Integrity

For HEAL's policy on ethics and data integrity see section 3.0 of this document. Upon being hired and annually thereafter, all employees at HEAL undergo documented data integrity training. All new employees sign an Ethics and Data Integrity Agreement, documenting their understanding of the high standards of integrity required at HEAL and outlining their responsibilities in regards to ethics and data integrity. See Appendix H for a copy of this agreement.

In instances of ethical concern analysts are required to report the known or suspected concern to their Technical Director, the Laboratory Manager or the QA/QCO. This will be done in a confidential and receptive environment, allowing all employees to privately discuss ethical issues or report items of ethical concern.

Once reported and documented the ethical concern will be immediately elevated to the Laboratory Manager and the need for an investigation, analyst remediation or termination will be determined on a case by case basis.

All reported instances of ethical concern will be thoroughly documented and handled in a manner sufficient to rectify any breaches in data integrity with an emphasis on preventing similar incidences from happening in the future.



9.0 Quality Control

Internal Quality Control Checks

HEAL utilizes various internal quality control checks, including duplicates, matrix spikes, matrix spike duplicates, method blanks, laboratory control spikes, laboratory control spike duplicates, surrogates, internal standards, calibration standards, quality control charts, proficiency tests and calculated measurement uncertainty.

Refer to the current method SOP to determine the frequency and requirements of all quality controls. In the event that the frequency of analysis is not indicated in the method specific SOP, duplicate samples, laboratory control spikes (LCS), Method Blanks (MB) and matrix spikes and matrix spike duplicates (MS/MSD) are analyzed for every batch of twenty samples.

When sample volume is limited on a test that requires an MS/MSD an LCSD shall be analyzed to demonstrate precision and accuracy and when possible a sample duplicate will be analyzed.

Duplicates, are identical tests repeated for the same sample or matrix spike in order to determine the precision of the test method. A Relative Percent Difference (RPD) is calculated as a measure of this precision. Unless indicated in the SOP, the default acceptance limit is $\leq 30\%$.

Matrix Spikes and Matrix Spike Duplicates are spiked samples (MS/MSD) that are evaluated with a known added quantity of a target compound. This is to help determine the accuracy of the analyses and to determine the matrix affects on analyte recovery. A percent recovery is calculated to assess the quality of the accuracy. In the event that the acceptance criteria is not outlined in the SOP a default limits of 70-130% will be utilized. When an MSD is employed an RPD is calculated and when not indicated in the SOP shall be acceptable at $\leq 30\%$.

When appropriate for the method, a Method Blank should be analyzed with each batch of samples processed to assess contamination levels in the laboratory. MBs consist of all the reagents measured and treated as they are with samples, except without the samples. This enables the laboratory to ensure clean reagents and procedures. Guidelines should be in place for accepting or rejecting data based on the level of contamination in the blank. In the event that these guidelines are not dictated by the SOP or in client specific work plans, the MB should be less than the MDL reported for the analyte being reported.

A Laboratory Control Spike and Laboratory Control Spike Duplicate (LCS/LCSD) are reagent blanks, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. It is generally used to establish intra-laboratory or analyst-specific precision and bias or to assess the performance of all or a portion of the measurement system. Guidelines are outline in each

SOP for the frequency and pass fail requirements for LCS and LCSDs. These limits can be set utilizing control charts as discussed below.

Surrogates are utilized when dictated by method and are substances with properties that mimic the analytes of interest. The surrogate is an analyte that is unlikely to be found in environmental samples. Refer to the appropriate Method and SOP for guidelines on pass/fail requirements for surrogates.

Internal Standards are utilized when dictated by the method and are known amounts of standard added to a test portion of a sample as a reference for evaluating and controlling the precision and bias of the applied analytical method. Refer to the appropriate Method and SOP for guidelines on pass/fail requirements for Internal Standards.

Proficiency Test (PT) Samples are samples provided by an unbiased third party. They are typically analyzed twice a year, or at any other interval defined in the method SOP. They contain a pre-determined concentration of the target compound, which is unknown to HEAL. HEAL's management and all analyst shall ensure that all PT samples are handled in the same manner as real environmental samples utilizing the same staff, methods, procedures, equipment, facilities and frequency of analysis as used for routine analysis of that analyte. When analyzing a PT, HEAL shall employ the same calibration, laboratory quality control and acceptance criteria, sequence of analytical steps, number of replicates and other procedures as used when analyzing routine samples.

With regards to analyzing PT Samples HEAL shall not send any PT sample, or portion of a PT sample, to another laboratory for any analysis for which we seeks accreditation, or are accredited. HEAL shall not knowingly receive any PT sample or portion of a PT sample from another laboratory for any analysis for which the sending laboratory seeks accreditation, or is accredited. Laboratory management or staff will not communicate with any individual at another laboratory concerning the PT sample. Laboratory management or staff shall not attempt to obtain the assigned value of any PT sample from the PT Provider.

Calibration standards are standards run to calibrate. Once the calibration is established the same standards can be analyzed as Continuing Calibration Verifications (CCV), used to confirm the consistency of the instrumentation. Calibration standards can be utilized at the beginning and end of each batch, or more frequently as required. Typically Continuing Calibration Blanks (CCB) are run in conjunction with CCVs. Refer to the current method SOP for frequency and pass/fail requirements of CCVs and CCBs.

Control Limits are limits of acceptable ranges of the values of quality control checks. If a value falls outside the appropriate range, immediate evaluation and assessment of the procedure is required. Data generated with laboratory control samples that fall outside of the established control limits are judged to be generated during an "out-of-control" situation. These data are considered suspect and shall be repeated or reported with qualifiers.

Control limits should be established and updated according to the requirements of the method being utilized. When the method does not specify, and control limits are to be generated or updated for a test, the following guidelines shall be utilized.

Control Limits should be updated periodically and at least annually. The Limits should be generated utilizing the most recent 20-40 data values and Control Charts should be printed when these limits are updated in the LIMS. The data values used shall not reuse values that were included in the previous Control Limit update. The data values shall also be reviewed by the LIMS for any Grubbs Outliers, and if identified, the outliers must be removed prior to generating new limits. Once new Control Limits have been established and updated in the LIMS, the printed Control Chart shall be reviewed by the appropriate technical director and primary analyst performing the analysis for possible trends and compared to the previous Control Charts. The technical director initials the control charts, indicating that they have reviewed and determined the updated Limits to be accurate and appropriate. These initialed charts are then filed in the QA/QCO office.

Calculated Measurement Uncertainty is calculated annually using LCSs in order to determine the laboratory specific uncertainty associated with each test method. These uncertainty values are available to our clients upon request and are utilized as a trending tool internally to determine the effectiveness of new variables introduced into the procedure over time.

Precision, Accuracy, Detection Levels

Precision

The laboratory uses sample duplicates, laboratory control spike duplicates and matrix spike duplicates to assess precision in terms of relative percent difference (RPD). HEAL requires the RPD to fall within the 99% confidence interval of established control charts or an RPD of less than 30% if control charts are not available. RPD's greater than these limits are considered out-of-control and require an appropriate response.

$$RPD = \frac{2 \times (\text{Sample Result} - \text{Duplicate Result})}{(\text{Sample Result} + \text{Duplicate Result})} \times 100$$

Accuracy

The accuracy of an analysis refers to the difference between the calculated value and the actual value of a measurement. The accuracy of a laboratory result is evaluated by comparing the measured amount of QC reference material recovered from a sample and the known amount added. Control limits can be established for each analytical method and sample matrix. Recoveries are assessed to determine the method efficiency and/or the matrix effect.

Analytical accuracy is expressed as the percent recovery (%R) of an analyte or parameter. A known amount of analyte is added to an environmental sample before

the sample is prepared and subsequently analyzed. The equation used to calculate percent recovery is:

$$\% \text{Recovery} = \{(\text{concentration}^* \text{ recovered})/(\text{concentration}^* \text{ added})\} \times 100$$

*or amount

HEAL requires that the Percent Recovery to fall within the 99 % confidence interval of established control limits. A value that falls outside of the confidence interval requires a warning and process evaluation. The confidence intervals are calculated by determining the mean and sample standard deviation. If control limits are not available, the range of 70 to 130% is used unless the specific method dictates otherwise. Percent Recoveries outside of this range mandate additional action such as analyses by Method of Standard Additions, additional sample preparation(s) where applicable, method changes, out-of-control action or data qualification.

Detection Limit

Current practices at HEAL define the Detection Limit (DL) as the smallest amount that can be detected above the baseline noise in a procedure within a stated confidence level.

HEAL presently utilizes an Instrument Detection Limit (IDL), a Method Detection Limit (MDL), and a Practical Quantitation Limit (PQL). The relationship between these levels is approximately
IDL: MDL: PQL = 1:5:5.

The IDL is a measure of the sensitivity of an analytical instrument. The IDL is the amount which, when injected, produces a detectable signal in 99% of the analyses at that concentration. An IDL can be considered the minimum level of analyte concentration that is detectable above random baseline noise.

The MDL is a measure of the sensitivity of an analytical method. An MDL determination (as required in 40CFR part 136 Appendix B) consists of replicate spiked samples carried through all necessary preparation steps. The spike concentration is three times the standard deviation of three replicates of spikes. At least seven replicates are spiked and analyzed and their standard deviation (s) calculated. Routine variability is critical in passing the 10 times rule and is best achieved by running the MDLs over different days and when possible over several calibration events. The method detection limit (MDL) can be calculated using the standard deviation according to the formula:

$$\text{MDL} = s * t (99\%)$$

Where t (99%) is the student's t value for the 99% confidence interval. It depends on the number of trials used in calculating the sample standard deviation, so choose the appropriate value according to the number of trials.

Number of Trials	$t(99\%)$
6	3.36
7	3.14
8	3.00
9	2.90

The calculated MDL must not be less than 10 times the spiked amount or the study must be performed again with a lower concentration.

The PQL is significant because different laboratories can produce different MDLs although they may employ the same analytical procedures, instruments and sample matrices. The PQL is about two to five times the MDL and represents a practical, and routinely achievable, reporting level with a good certainty that the reported value is reliable. It is often determined by regulatory limits. The reported PQL for a sample is dependent on the dilution factor utilized during sample analysis.

Quality Control Parameter Calculations

Mean

The sample mean is also known as the arithmetic average. It can be calculated by adding all of the appropriate values together, and dividing this sum by the number of values.

$$\text{Average} = (\sum x_i) / n$$

x_i = the value x in the i^{th} trial
 n = the number of trials

Standard Deviation

The sample standard deviation, represented by s , is a measure of dispersion. The dispersion is considered to be the difference between the average and each of the values x_i . The variance, s^2 , can be calculated by summing the squares of the differences and dividing by the number of differences. The sample standard deviation, s , can be found by taking the square root of the variance.

$$\text{Standard deviation} = s = \left[\frac{\sum (x_i - \text{average})^2}{(n - 1)} \right]^{1/2}$$

Percent Recovery (MS, MSD, LCS and LCSD)

$$\text{Percent Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result}) \times 100}{(\text{Spike Added})}$$

Confidence Intervals

Confidence intervals are calculated by the LIMS using the average (x), the sample standard deviation (s), and the Student's t distribution (s-dist), which depends on the number of values used to calculate the average and sample standard deviation.

The formula is: confidence interval = $x \pm s * s\text{-dist}$

Student's t Distribution

# values	10	15	20	25	31	41	61	121	> 121
95 %	2.262	2.145	2.093	2.064	2.042	2.021	2.000	1.980	1.960
99%	3.250	2.977	2.861	2.797	2.750	2.704	2.660	2.617	2.576

Unless there is insufficient data, at least 20 values will always be used in calculating the confidence intervals.

RPD (Relative Percent Difference)

Analytical precision is expressed as a percentage of the difference between the results of duplicate samples for a given analyst. Relative percent difference (RPD) is calculated as follows:

$$\text{RPD} = \frac{2 \times (\text{Sample Result} - \text{Duplicate Result}) \times 100}{(\text{Sample Result} + \text{Duplicate Result})}$$

Uncertainty Measurements

Uncertainty, as defined by ISO, is the parameter associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurement. Ultimately uncertainty measurements are used to state how good a test result is and to allow the end user of data to properly interpret their reported data. All procedures allow for some uncertainty. For most analyses the components and estimates of uncertainty are reduced by following well established test methods. To further reduce uncertainty, results are generally not reported below the lowest calibration point (PQL) or above the highest calibration point (UQL).

Understanding that there are many influence quantities affecting a measurement result, so many in fact that it is impossible to identify all of them, HEAL calculates measurement uncertainty at least annually using LCSs. These estimations of measurement uncertainty are kept on file in the method folders in the QA/QC office.

Measurement Uncertainty contributors are those that may be determined statistically. These shall be generated by estimating the overall uncertainty in the entire analytical process by measuring the dispersion of values obtained from laboratory control samples over time. At least 20 of the most recent LCS data points are gathered. The standard deviation (s) is calculated using these LCSs data points. Since it can be assumed that the possible estimated values of the spikes are approximately normally distributed with approximate standard deviation (s), the unknown value of the spike is believed to lie in 95% confidence interval, corresponding to an uncertainty range of $\pm 2(s)$.

Calculate standard deviation (s) and 95% confidence interval according to the following formulae:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{(n-1)}}$$

Where: s = standard deviation
x = number in series
 \bar{x} = calculated mean of series
n = number of samples taken

$$95\% \text{ confidence} = 2 \times s$$

Example: Assuming that after gathering 20 of the most recent LCS results for Bromide, we have calculated the standard deviations of the values and achieved a result of 0.0326, our measurement uncertainty for Bromide (at 95% confidence = $2 \times s$) is 0.0652.

Calibration Calculations

1. Response Factor or Calibration Factor:

$$RF = ((A_x)(C_{is})) / ((A_{is})(C_x))$$

$$CF = (A_x) / (C_x)$$

a. Average RF or CF

$$RF_{AVE} = \Sigma RF_i / n$$

b. Standard Deviation

$$s = \text{SQRT} \{ [\Sigma (RF_i - RF_{AVE})^2] / (n-1) \}$$

c. Relative Standard Deviation

$$RSD = s / RF_{AVE}$$

Where:

A_x = Area of the compound

C_x = Concentration of the compound

A_{is} = Area of the internal standard

C_{is} = Concentration of the internal standard

n = number of pairs of data

RF_i = Response Factor (or other determined value)

RF_{AVE} = Average of all the response factors

Σ = the sum of all the individual values

2. Linear Regression

$$y = mx + b$$

a. Slope (m)

$$m = (n \Sigma x_i y_i - (n \Sigma x_i)(n \Sigma y_i)) / (n \Sigma x_i^2 - (\Sigma x_i)^2)$$

b. Intercept (b)

$$b = y_{AVE} - m(x_{AVE})$$

c. Correlation Coefficient (cc)

$$CC(r) = \{ \Sigma ((x_i - x_{ave}) * (y_i - y_{ave})) \} / \{ \text{SQRT}((\Sigma (x_i - x_{ave})^2) * (\Sigma (y_i - y_{ave})^2)) \}$$

Or

$$CC(r) = [(\Sigma w * \Sigma wxy) - (\Sigma wx * \Sigma wy)] / (\text{sqrt}(([\Sigma w * \Sigma wx^2] - (\Sigma wx * \Sigma wx)) * ([\Sigma w * \Sigma wy^2] - (\Sigma wy * \Sigma wy))))]$$

d. Coefficient of Determination

$$COD(r^2) = CC * CC$$

Where:

y = Response (Area) Ratio A_x/A_{is}

x = Concentration Ratio C_x/C_{is}

m = slope

b = intercept

n = number of replicate x,y pairs

x_i = individual values for independent variable

y_i = individual values for dependent variable

Σ = the sum of all the individual values

x_{ave} = average of the x values

y_{ave} = average of the y values

w = weighting factor, for equal weighting w=1

3. Quadratic Regression

$$y = ax^2 + bx + c$$

a. Coefficient of Determination

$$COD (r^2) = (\Sigma(y_i - y_{ave})^2 - [((n-1)/(n-p)) * \Sigma(y_i - Y_i)^2]) / \Sigma(y_i - y_{ave})^2$$

Where:

y = Response (Area) Ratio A_x/A_{is}

x = Concentration Ratio C_x/C_{is}

a = x^2 coefficient

b = x coefficient

c = intercept

y_i = individual values for each dependent variable

x_i = individual values for each independent variable

y_{ave} = average of the y values

n = number of pairs of data

p = number of parameters in the polynomial equation (i.e., 3 for third order, 2 for second order)

$$Y_i = ((2*a*(C_x/C_{is})^2) - b^2 + b + (4*a*c)) / (4a)$$

b. Coefficients (a,b,c) of a Quadratic Regression

$$a = S_{(x_2y)}S_{(xx)} - S_{(xy)}S_{(xx_2)} / S_{(xx)}S_{(x_2x_2)} - [S_{(xx_2)}]^2$$

$$b = S_{(xy)}S_{(x_2x_2)} - S_{(x_2y)}S_{(xx_2)} / S_{(xx)}S_{(x_2x_2)} - [S_{(xx_2)}]^2$$

$$c = [(\Sigma yw)/n] - b * [(\Sigma xw)/n] - a * [\Sigma(x^2w)/n]$$

Where:

n = number of replicate x,y pairs

x = x values

y = y values

$w = S^{-2} / (\sum S^{-2} / n)$

$S_{(xx)} = (\sum x^2 w) - [(\sum x w)^2 / n]$

$S_{(xy)} = (\sum xy w) - [(\sum x w)(\sum y w) / n]$

$S_{(xx2)} = (\sum x^3 w) - [(\sum x w)(\sum x^2 w) / n]$

$S_{(x2y)} = (\sum x^2 y w) - [(\sum x^2 w)(\sum y w) / n]$

$S_{(x2x2)} = (\sum x^4 w) - [(\sum x^2 w)^2 / n]$

Or If unweighted calibration, $w=1$

$S_{(xx)} = (Sx2) - [(Sx)^2 / n]$

$S_{(xy)} = (Sxy) - [(Sx)(Sy) / n]$

$S_{(xx2)} = (Sx3) - [(Sx)(Sx2) / n]$

$S_{(x2y)} = (Sx2y) - [(Sx2)(Sy) / n]$

$S_{(x2x2)} = (Sx4) - [(Sx2)^2 / n]$

11.0 Data Reduction, Validation, Reporting, and Record Keeping

All data reported must be of the highest possible accuracy and quality. During the processes of data reduction, validation, and report generation, all work is thoroughly checked to insure that error is minimized.

Data Reduction

The analyst who generated the data usually performs the data reduction. The calculations include evaluation of surrogate recoveries (where applicable), and other miscellaneous calculations related to the sample quantitation.

If the results are computer generated, then the formulas must be confirmed by hand calculations, at minimum, one per batch.

See the current Data Validation SOP for details regarding data reduction.

Validation

A senior analyst, most often the section supervisor, validates the data. All data undergoes peer review. If an error is detected it is brought to the analyst attention to rectify and further checks ensure that all data for that batch is sound. Previous and/or common mistakes are stringently monitored throughout the validation process. Data is reported using appropriate significant figure criteria. In most cases, two significant digits are utilized, but three significant digits can be used in QC calculations. Significant digits are not rounded until after the last step of a sample calculation. All final reports undergo a review by the laboratory manager, or the project manager or their designee, to provide a logical review of all results before they are released to the client.

If data is to be manually transferred from one medium to another, the transcribed data is checked by a peer. This includes data typing, computer data entry, chromatographic data transfer, data table inclusion to a cover letter, or when data results are combined with other data fields.

All hand written data from run logs, analytical standard logbooks, hand entered data logbooks, or on instrument generated chromatograms, are systematically archived should the need for future retrieval arise.

See the current Data Validation SOP for detail regarding data validation.

Reports and Records

All records at HEAL are retained and maintained through the procedures outlined in the most recent version of the Records Control SOP.

The reports are compiled by the Laboratory Information Management System (LIMS). Most data is transferred directly from the instruments to the LIMS. After being processed by the analyst and reviewed by a data reviewer, final reports are approved and signed by the senior laboratory management. A comparative analysis of the data is performed at this point. For example, if TKN and NH3 are analyzed on the same sample the NH3 result should never be greater than the TKN result. Lab results and reports are released only to appropriately designated individuals. Release of the data can be by fax, email, electronic deliverables, or mailed hard copy.

When a project is completed, the project file folder is stored with a hard copy of the report, relevant supporting data, and the quality assurance/control worksheets. These folders are kept on file and are arranged by project number. Additionally, all electronic data is backed up daily on the HEAL main server. The backup includes raw data, chromatograms and report documents. Hard copies of chromatograms are stored separately according to the instrument and the analysis date. All records and analytical data reports are retained in a secure location as permanent records for a minimum period of five years (unless specified otherwise in a client contract). Access to archived information shall be documented with an access log. Access to archived electronic reports and data will be protected by a project manager password. In the event that HEAL transfers ownership or terminates business practices, complete records will be maintained or transferred according to the client's instructions.

After issuance, the original report shall remain unchanged. If a correction to the report is necessary, then an additional document shall be issued. This document shall have a title of "Addendum to Test Report or Correction to Original Report", or equivalent. Demonstration of original report integrity comes in two forms. First, the report date is included on each page of the final report. Second, each page is numbered in sequential order, making the addition or omission of any data page(s) readily detectable.

12.0 Corrective Action

Refer to the most recent version of the Data Validation SOP for the procedure utilized in filling out a Corrective Action Report.

The limits that have been defined for data acceptability also form the basis for corrective action initiation. Initiation of corrective action occurs when the data generated from continuing calibration standard, sample surrogate recovery, laboratory control spike, matrix spike or sample duplicates exceed acceptance criteria. If corrective action is necessary, the analyst or the section supervisor will coordinate to take the following steps to determine and correct the measurement system deficiency:

Check all calculations and data measurements systems (Calibrations, reagents, instrument performance checks etc.).

Assure that proper procedures were followed.

Unforeseen problems that arise during sample preparation and/or sample analysis that lead to treating a sample differently from documented procedures shall be documented with a corrective action report. The section supervisor and laboratory manager shall be made aware of the problem at the time of the occurrence. See the appropriate SOP regarding departures from documented procedures.

Continuing calibration standards below acceptance criteria can not be used for reporting analytical data unless method specific criteria states otherwise.

Continuing calibration standards above acceptance criteria can be used to report data so long as the failure is isolated to a single standard and the corresponding samples are non-detect for the failing analyte.

Samples with non-compliant surrogate recoveries should be reanalyzed unless deemed unnecessary by the supervisor for matrix, historical data, or other analysis related anomalies.

Laboratory and Matrix Spike acceptance criteria vary significantly depending on method and matrix. Analysts and supervisors meet and discuss appropriate corrective action measures as spike failures occur.

Sample duplicates with RPD values outside control limits require supervisor evaluation and possible reanalysis.

A second mechanism for initiation of corrective action is that resulting from Quality Assurance performance audits, system audits, inter and intra-laboratory comparison studies. Corrective Actions initiated through this mechanism will be monitored and coordinated by the laboratory QA/QCO.

All corrective action forms are entered in the LIMS and included with the raw data for peer review, signed by the technical director of the section and included in the case narrative to

the client whose samples were affected. All Corrective action forms in the LIMS are reviewed by the QA/QCO.

13.0 Quality Assurance Audits, Reports and Complaints

Internal/External Systems' Audits, Performance Evaluations, and Complaints

Several procedures are used to assess the effectiveness of the quality control system. One of these methods includes internal performance evaluations, which are conducted by the use of control samples, replicate measurements and control charts. Another method is external performance audits, which are conducted by the use of inter-laboratory checks, such as participation in laboratory evaluation programs and performance evaluation samples available from a NELAC accredited Proficiency Standard Vendor.

Proficiency samples will be obtained twice per year from an appropriate vendor for all tests and matrices for which we are accredited and for which there are PTs available. HEAL participates in soil, waste water, drinking water and underground storage tank PT studies. Copies of results are available upon request. HEAL's management and all analyst shall ensure that all PT samples are handled in the same manner as real environmental samples utilizing the same staff, methods, procedures, equipment, facilities and frequency of analysis as used for routine analysis of that analyte. When analyzing a PT, HEAL shall employ the same calibration, laboratory quality control and acceptance criteria, sequence of analytical steps, number of replicates and other procedures as used when analyzing routine samples.

With regards to analyzing PT Samples HEAL shall not send any PT sample, or portion of a PT sample, to another laboratory for any analysis for which we seeks accreditation, or are accredited. HEAL shall not knowingly receive any PT sample or portion of a PT sample from another laboratory for any analysis for which the sending laboratory seeks accreditation, or is accredited. Laboratory management or staff will not communicate with any individual at another laboratory concerning the PT sample. Laboratory management or staff shall no attempt to obtain the assigned value of any PT sample from the PT Provider.

Internal Audits are performed annually by the QA/QCO in accordance with the current Internal Audit SOP. They are performed using the guidelines outlined below:

The system audit consists of a qualitative inspection of the QA system in the laboratory and an assessment of the adequacy of the physical facilities for sampling, calibration, and measurement. This audit includes a careful evaluation and review of laboratory quality control procedures. Including but not limited to:

1. Review of staff qualifications, demonstration of capability, and personnel training programs
2. Storage and handling of reagents, standards and samples
3. Standard preparation logbook and LIMS procedures
4. Extraction logbooks
5. Raw data logbooks
6. Analytical logbooks or batch printouts and instrument maintenance logbooks
7. Data review procedures

8. Corrective action procedures
9. Review of data packages is performed regularly by the lab manager/QA Officer.

The QA/QCO will conduct these audits on an annual basis.

Management Reviews

HEAL management shall periodically, and at least annually conduct a review of the laboratory's quality system and environmental testing activities to ensure their continuing suitability and effectiveness, and to introduce necessary changes or improvements. The review shall take account of:

1. the suitability and implementation of policies and procedures
2. reports from managerial and supervisory personnel
3. the outcome of recent internal audits
4. corrective and preventive actions
5. assessments by external bodies
6. the results of interlaboratory comparisons or proficiency tests
7. changes in volume and type of work
8. client feed back
9. complaints
10. other relevant factors, such as laboratory health and safety, QC activities, resources and staff training.

Findings from management reviews and the actions that arise from them shall be recorded and any corrective actions that arise shall be completed in an appropriate and agreed upon timescale.

Complaints

Complaints from clients are documented and given to the laboratory manager. The lab manager shall review the information and contact the client. If doubt is raised concerning the laboratories policies or procedures, then an audit of the section or sections may be performed. All records of complaints and subsequent actions shall be maintained in the client compliant logbook for 5 years unless otherwise stated.

Internal and External Reports

The QA/QCO is responsible for preparation and submission of quality assurance reports to the appropriate management personnel as problems and issues arise. These reports include the assessment of measurement systems, data precision and accuracy, and the results of performance and system audits. Additionally, they also include significant QA problems, corrective actions, and recommended resolution measures. Reports of these Quality Assurance Audits describe the particular activities audited, procedures utilized in

the examination and evaluation of laboratory records, and data validation procedures. Finally, there are procedures for evaluating the performance of Quality Control and Quality Assurance activities, and laboratory deficiencies and the implementation of corrective actions with the review requirements.

14.0 Analytical Protocols Utilized at Hall Environmental Analysis Laboratory, Inc.

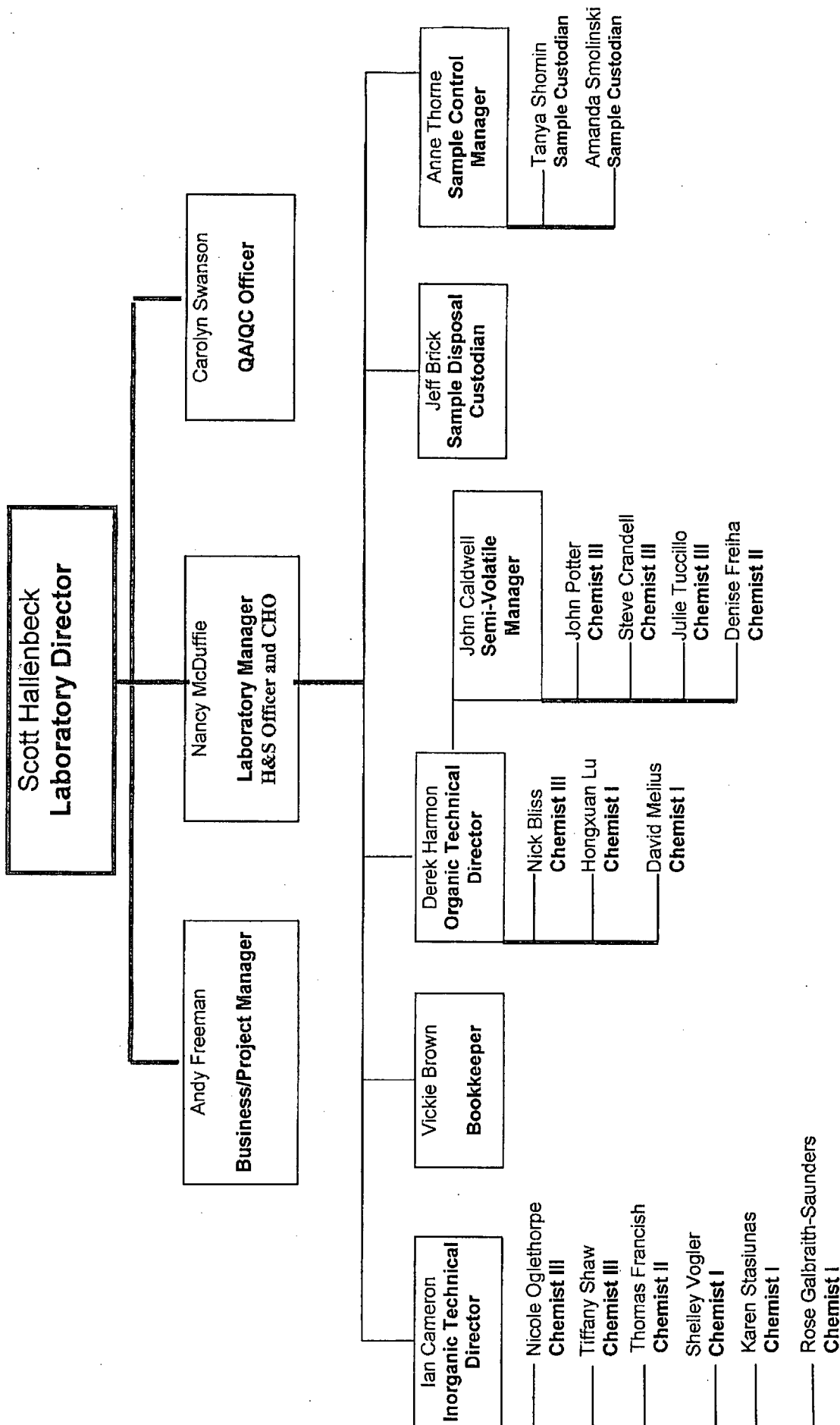
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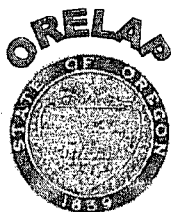
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Appendix A

Personnel Chart / Organizational Structure

Diagram of Organizational Structure





OREGON

ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM



NELAP Recognized

Hall Environmental Analysis Laboratory, Inc.

NM100001

4901 Hawkins Rd. NE, Suite D
Albuquerque, NM 87109

IS GRANTED APPROVAL BY ORELAP UNDER THE 2003 NELAC STANDARDS, TO
PERFORM ANALYSES ON ENVIRONMENTAL SAMPLES IN MATRICES AS LISTED
BELOW:

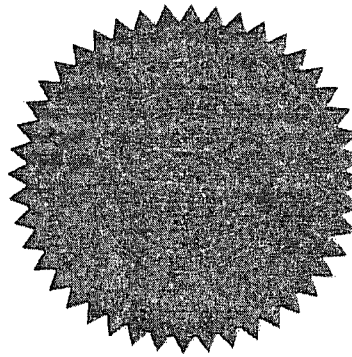
<i>Air</i>	<i>Drinking Water</i>	<i>Non Potable Water</i>	<i>Solids and Chem. Waste</i>	<i>Tissue</i>
	Chemistry	Chemistry	Chemistry	

AND AS RECORDED IN THE LIST OF APPROVED ANALYTES, METHODS,
ANALYTIC TECHNIQUES, AND FIELDS OF TESTING ISSUED CONCURRENTLY
WITH THIS CERTIFICATE AND REVISED AS NECESSARY.

ACCREDITED STATUS DEPENDS ON SUCCESSFUL ONGOING PARTICIPATION IN THE PROGRAM AND
CONTINUED COMPLIANCE WITH THE STANDARDS.

CUSTOMERS ARE URGED TO VERIFY THE LABORATORY'S CURRENT ACCREDITATION STATUS IN
OREGON.

Irene E. Ronning, Ph.D.
ORELAP Administrator
3150 NW 229th Ave, Suite 100
Hillsboro, OR 97124



ISSUE DATE: 3/1/2008

EXPIRATION DATE: 2/28/2009

Certificate No: NM100001-009



Oregon

Environmental Laboratory Accreditation Program



Department of Agriculture, Laboratory Division
Department of Environmental Quality, Laboratory Division
Department of Human Services, Public Health Laboratory

Public Health Laboratory
3150 NW 229th Ave, Suite 100
Hillsboro, OR, OR 97124
(503) 693-4122
FAX (503) 693-5602
NELAP Recognized

ORELAP Fields of Accreditation

ORELAPID: NM100001
EPACode: NM00035

Hall Environmental Analysis Laboratory, Inc.

4901 Hawkins Rd. NE, Suite D
Albuquerque, NM, 87109

Certificate:
NM100001-009

Issue Date: 3/1/2008

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with ORELAP.

MATRIX: Drinking Water			
Reference	Code	Description	
EPA 200.7 5	10014003	ICP - metals	
<u>Analyte Code</u>	<u>Analyte</u>		
1000	Aluminum		
1015	Barium		
1020	Beryllium		
1025	Boron		
1030	Cadmium		
1035	Calcium		
1040	Chromium		
1055	Copper		
1070	Iron		
1075	Lead		
1085	Magnesium		
1090	Manganese		
1100	Molybdenum		
1105	Nickel		
1125	Potassium		
1150	Silver		
1155	Sodium		
1175	Tin		
1180	Titanium		
1185	Vanadium		
1190	Zinc		
EPA 245.1 3	10036609	Mercury by Cold Vapor Atomic Absorption	
<u>Analyte Code</u>	<u>Analyte</u>		
1095	Mercury		
EPA 300.0	10053006	Ion chromatography - anions.	
<u>Analyte Code</u>	<u>Analyte</u>		
1575	Chloride		
1730	Fluoride		
1810	Nitrate as N		
1835	Nitrite		
2000	Sulfate		
EPA 300.0 2.1	10053200	Inorganic Anions in water by Ion Chromatography	
<u>Analyte Code</u>	<u>Analyte</u>		
1870	Orthophosphate as P		

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EPA 5030B 2		10153409	Purge and trap for aqueous samples
<u>Analyte Code</u>	<u>Analyte</u>		
125	Extraction/Preparation		
EPA 504.1		10083008	EDB/DBCP/TCP micro-extraction, GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
4570	1,2-Dibromo-3-chloropropane (DBCP)		
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)		
EPA 524.2 4.1		10088809	Volatile Organic Compounds GC/MS Capillary Column
<u>Analyte Code</u>	<u>Analyte</u>		
5105	1,1,1,2-Tetrachloroethane		
5160	1,1,1-Trichloroethane		
5110	1,1,2,2-Tetrachloroethane		
5165	1,1,2-Trichloroethane		
4630	1,1-Dichloroethane		
4640	1,1-Dichloroethylene		
4670	1,1-Dichloropropene		
5150	1,2,3-Trichlorobenzene		
5180	1,2,3-Trichloropropane		
5155	1,2,4-Trichlorobenzene		
5210	1,2,4-Trimethylbenzene		
4610	1,2-Dichlorobenzene		
4635	1,2-Dichloroethane		
4655	1,2-Dichloropropane		
5215	1,3,5-Trimethylbenzene		
4615	1,3-Dichlorobenzene		
4660	1,3-Dichloropropane		
4620	1,4-Dichlorobenzene		
4535	2-Chlorotoluene		
4540	4-Chlorotoluene		
4375	Benzene		
4385	Bromobenzene		
4390	Bromochloromethane		
4395	Bromodichloromethane		
4400	Bromoform		
4950	Bromomethane (Methyl bromide)		
4455	Carbon tetrachloride		
4475	Chlorobenzene		
4485	Chloroethane		
4505	Chloroform		
105	Chloromethane		
4645	cis-1,2-Dichloroethylene		
4680	cis-1,3-Dichloropropene		
4575	Dibromochloromethane		
4595	Dibromomethane		
4650	Dichloromethane (DCM, Methylene chloride)		
4765	Ethylbenzene		
4835	Hexachlorobutadiene		
4900	Isopropylbenzene		
5000	Methyl tert-butyl ether (MTBE)		
4435	n-Butylbenzene		
5090	n-Propylbenzene		

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4440	sec-Butylbenzene
5100	Styrene
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dicloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride
5260	Xylene (total)

SM 2540 C 20th ED	20050004	Total Dissolved Solids
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<u>Analyte Code</u>	<u>Analyte</u>
1955	Residue-filterable (TDS)

SM 4500-H+ B 20th ED	20104807	pH by Probe
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<u>Analyte Code</u>	<u>Analyte</u>
1900	pH

SM 5310 B 20th ED	20137400	Total Organic Carbon by Combustion Infra-red Method
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<u>Analyte Code</u>	<u>Analyte</u>
2040	Total Organic Carbon

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MATRIX: Non-Rotable Water

Reference	Code	Description
EPA 300.0	10053006	Ion chromatography - anions.
<u>Analyte Code</u>	<u>Analyte</u>	
1540	Bromide	
1575	Chloride	
1730	Fluoride	
1810	Nitrate as N	
1840	Nitrite as N	
1870	Orthophosphate as P	
2000	Sulfate	
EPA 3005A 1	10133207	Acid Digestion of waters for Total Recoverable or Dissolved Metals
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3510C 3	10138202	Separatory Funnel Liquid-liquid extraction
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 5030B 2	10153409	Purge and trap for aqueous samples
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 6010B 2	10155609	ICP - AES
<u>Analyte Code</u>	<u>Analyte</u>	
1000	Aluminum	
1005	Antimony	
1010	Arsenic	
1015	Barium	
1020	Beryllium	
1025	Boron	
1030	Cadmium	
1035	Calcium	
1040	Chromium	
1050	Cobalt	
1070	Iron	
1075	Lead	
1085	Magnesium	
1090	Manganese	
1100	Molybdenum	
1105	Nickel	
1125	Potassium	
1140	Selenium	
1150	Silver	
1155	Sodium	
1165	Thallium	
1175	Tin	
1180	Titanium	
3035	Uranium	
1185	Vanadium	
1190	Zinc	
EPA 7470A 1	10165807	Mercury in Liquid Waste by by Cold Vapor Atomic Absorption
<u>Analyte Code</u>	<u>Analyte</u>	
1095	Mercury	

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EPA 8015B 2		10173601	Non-halogenated organics using GC/FID
<u>Analyte Code</u>	<u>Analyte</u>		
9369	Diesel range organics (DRO)		
9408	Gasoline range organics (GRO)		
102	Motor Oil		
EPA 8021B 2		10174808	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge &
<u>Analyte Code</u>	<u>Analyte</u>		
5210	1,2,4-Trimethylbenzene		
5215	1,3,5-Trimethylbenzene		
4375	Benzene		
4765	Ethylbenzene		
5240	m+p-xylene		
5000	Methyl tert-butyl ether (MTBE)		
5250	o-Xylene		
5140	Toluene		
5260	Xylene (total)		
EPA 8081A 1		10178606	Organochlorine Pesticides by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
7355	4,4'-DDD		
7360	4,4'-DDE		
7365	4,4'-DDT		
7025	Aldrin		
7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
7115	beta-BHC (beta-Hexachlorocyclohexane)		
7105	delta-BHC		
7470	Dieldrin		
7510	Endosulfan I		
7515	Endosulfan II		
7520	Endosulfan sulfate		
7540	Endrin		
7530	Endrin aldehyde		
7120	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)		
7685	Heptachlor		
7690	Heptachlor epoxide		
7810	Methoxychlor		
EPA 8082		10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
8880	Aroclor-1016 (PCB-1016)		
8885	Aroclor-1221 (PCB-1221)		
8890	Aroclor-1232 (PCB-1232)		
8895	Aroclor-1242 (PCB-1242)		
8900	Aroclor-1248 (PCB-1248)		
8905	Aroclor-1254 (PCB-1254)		
8910	Aroclor-1260 (PCB-1260)		
EPA 8260B 2		10184802	Volatile Organic Compounds by purge and trap GC/MS
<u>Analyte Code</u>	<u>Analyte</u>		
5105	1,1,1,2-Tetrachloroethane		
5160	1,1,1-Trichloroethane		
5110	1,1,2,2-Tetrachloroethane		
5165	1,1,2-Trichloroethane		
4630	1,1-Dichloroethane		

ORELAP Fields of Accreditation

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Customers: Please verify the current accreditation standing with ORELAP.

4640	1,1-Dichloroethylene
4670	1,1-Dichloropropene
5150	1,2,3-Trichlorobenzene
5180	1,2,3-Trichloropropane
5155	1,2,4-Trichlorobenzene
5210	1,2,4-Trimethylbenzene
4570	1,2-Dibromo-3-chloropropane (DBCP)
4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4660	1,3-Dichloropropane
4620	1,4-Dichlorobenzene
6380	1-Methylnaphthalene
4665	2,2-Dichloropropane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4535	2-Chlorotoluene
4860	2-Hexanone
6385	2-Methylnaphthalene
4540	4-Chlorotoluene
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4950	Bromomethane (Methyl bromide)
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4485	Chloroethane
4505	Chloroform
105	Chloromethane
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4575	Dibromochloromethane
4595	Dibromomethane
4625	Dichlorodifluoromethane
4650	Dichloromethane (DCM, Methylene chloride)
4765	Ethylbenzene
4835	Hexachlorobutadiene
4900	Isopropylbenzene
5240	m+p-xylene
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
4435	n-Butylbenzene
5090	n-Propylbenzene
5250	o-Xylene

ORELAP Fields of Accreditation

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Customers: Please verify the current accreditation standing with ORELAP.

4910	p-Isopropyltoluene
4440	sec-Butylbenzene
5100	Styrene
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene
4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride
5260	Xylene (total)

EPA 8270C 3

10185805

SemiVolatile Organic compounds by GC/MS

<u>Analyte Code</u>	<u>Analyte</u>
5155	1,2,4-Trichlorobenzene
4610	1,2-Dichlorobenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
6835	2,4,5-Trichlorophenol
6840	2,4,6-Trichlorophenol
6000	2,4-Dichlorophenol
6130	2,4-Dimethylphenol
6175	2,4-Dinitrophenol
6185	2,4-Dinitrotoluene (2,4-DNT)
6190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
6385	2-Methylnaphthalene
6400	2-Methylphenol (o-Cresol)
6460	2-Nitroaniline
6490	2-Nitrophenol
6412	3 & 4 Methylphenol
5945	3,3'-Dichlorobenzidine
6465	3-Nitroaniline
6140	4,6-Dinitro-2-methylphenol
5660	4-Bromophenyl phenyl ether
5700	4-Chloro-3-methylphenol
5745	4-Chloroaniline
5825	4-Chlorophenyl phenylether
6470	4-Nitroaniline
6500	4-Nitrophenol
5500	Acenaphthene
5505	Acenaphthylene
5545	Aniline
5555	Anthracene
123	Azobenzene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene

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482	Benzofluoranthene
5610	Benzoic acid
5630	Benzyl alcohol
5765	bis(2-Chloroethyl)ether
5770	bis(2-Chloroethoxymethane)
5780	bis(2-Chloroisopropyl)ether
6255	bis(2-Ethylhexyl)phthalate (DEHP)
5670	Butyl benzyl phthalate
5680	Carbazole
5855	Chrysene
5895	Dibenz[a,h]anthracene
5905	Dibenzofuran
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno[1,2,3-cd]pyrene
6320	Isophorone
5005	Naphthalene
5015	Nitrobenzene
6535	n-Nitrosodiphenylamine
6540	n-Nitrosodipropylamine
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene
5095	Pyridine

EPA 8310

10187607

Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS

<u>Analyte Code</u>	<u>Analyte</u>
6380	1-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene
5855	Chrysene
5895	Dibenz[a,h]anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno[1,2,3-cd]pyrene
5005	Naphthalene
6615	Phenanthrene

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6665	Pyrene		
SM 2540 C 20th ED		20050004	Total Dissolved Solids
<u>Analyte Code</u>	<u>Analyte</u>		
1955	Residue-filterable (TDS)		
SM 4500-H+ B 20th ED		20104807	pH by Probe
<u>Analyte Code</u>	<u>Analyte</u>		
1900	pH		

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MATRIX: Solids		
Reference	Code	Description
EPA 3050A	10135407	Acid Digestion of Sediments, Sludges, and soils
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3540C 3	10140202	Soxhlet Extraction
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 3545	10140804	Pressurized Fluid Extraction (PFE)
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 5035	10154004	Closed-System Purge-and-Trap and Extraction for Volatile Organics in So
<u>Analyte Code</u>	<u>Analyte</u>	
125	Extraction/Preparation	
EPA 6010B 2	10155609	ICP - AES
<u>Analyte Code</u>	<u>Analyte</u>	
1000	Aluminum	
1005	Antimony	
1010	Arsenic	
1015	Barium	
1020	Beryllium	
1025	Boron	
1030	Cadmium	
1035	Calcium	
1040	Chromium	
1050	Cobalt	
1055	Copper	
1070	Iron	
1075	Lead	
1085	Magnesium	
1090	Manganese	
1100	Molybdenum	
1105	Nickel	
1125	Potassium	
1140	Selenium	
1150	Silver	
1155	Sodium	
1165	Thallium	
1175	Tin	
1180	Titanium	
3035	Uranium	
1185	Vanadium	
1190	Zinc	
EPA 7471A 1	10166208	Mercury in Solid Waste by Cold Vapor Atomic Absorption
<u>Analyte Code</u>	<u>Analyte</u>	
1095	Mercury	
EPA 8015B 2	10173601	Non-halogenated organics using GC/FID
<u>Analyte Code</u>	<u>Analyte</u>	
9369	Diesel range organics (DRO)	
9408	Gasoline range organics (GRO)	
102	Motor Oil	

ORELAP Fields of Accreditation

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EPA 8021B 2		10174808	Aromatic and Halogenated Volatiles by GC with PID and/or ECD Purge &
<u>Analyte Code</u>	<u>Analyte</u>		
4375	Benzene		
4765	Ethylbenzene		
5240	m+p-xylene		
5000	Methyl tert-butyl ether (MTBE)		
5250	o-Xylene		
5140	Toluene		
5260	Xylene (total)		
EPA 8081A 1		10178606	Organochlorine Pesticides by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
7355	4,4'-DDD		
7360	4,4'-DDE		
7365	4,4'-DDT		
7025	Aldrin		
7110	alpha-BHC (alpha-Hexachlorocyclohexane)		
7115	beta-BHC (beta-Hexachlorocyclohexane)		
7105	delta-BHC		
7470	Dieldrin		
7510	Endosulfan I		
7515	Endosulfan II		
7520	Endosulfan sulfate		
7540	Endrin		
7530	Endrin aldehyde		
7120	gamma-BHC (Lindane, gamma-Hexachlorocyclohexane)		
7685	Heptachlor		
7690	Heptachlor epoxide		
7810	Methoxychlor		
EPA 8082		10179007	Polychlorinated Biphenyls (PCBs) by GC/ECD
<u>Analyte Code</u>	<u>Analyte</u>		
8880	Aroclor-1016 (PCB-1016)		
8885	Aroclor-1221 (PCB-1221)		
8890	Aroclor-1232 (PCB-1232)		
8895	Aroclor-1242 (PCB-1242)		
8900	Aroclor-1248 (PCB-1248)		
8905	Aroclor-1254 (PCB-1254)		
8910	Aroclor-1260 (PCB-1260)		
EPA 8260B 2		10184802	Volatile Organic Compounds by purge and trap GC/MS
<u>Analyte Code</u>	<u>Analyte</u>		
5105	1,1,1,2-Tetrachloroethane		
5160	1,1,1-Trichloroethane		
5110	1,1,2,2-Tetrachloroethane		
5165	1,1,2-Trichloroethane		
4630	1,1-Dichloroethane		
4640	1,1-Dichloroethylene		
4670	1,1-Dichloropropene		
5150	1,2,3-Trichlorobenzene		
5180	1,2,3-Trichloropropane		
5155	1,2,4-Trichlorobenzene		
5210	1,2,4-Trimethylbenzene		
4570	1,2-Dibromo-3-chloropropane (DBCP)		

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPACode: NM00035

Hall Environmental Analysis Laboratory, Inc.

4901 Hawkins Rd. NE, Suite D

Albuquerque, NM, 87109

Certificate:

NM100001-009

Issue Date: 3/1/2008

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number.

Customers: Please verify the current accreditation standing with ORELAP.

4585	1,2-Dibromoethane (EDB, Ethylene dibromide)
4610	1,2-Dichlorobenzene
4635	1,2-Dichloroethane
4655	1,2-Dichloropropane
5215	1,3,5-Trimethylbenzene
4615	1,3-Dichlorobenzene
4660	1,3-Dichloropropane
4620	1,4-Dichlorobenzene
6380	1-Methylnaphthalene
4665	2,2-Dichloropropane
4410	2-Butanone (Methyl ethyl ketone, MEK)
4535	2-Chlorotoluene
4860	2-Hexanone
6385	2-Methylnaphthalene
4540	4-Chlorotoluene
4995	4-Methyl-2-pentanone (MIBK)
4315	Acetone
4375	Benzene
4385	Bromobenzene
4390	Bromochloromethane
4395	Bromodichloromethane
4400	Bromoform
4950	Bromomethane (Methyl bromide)
4450	Carbon disulfide
4455	Carbon tetrachloride
4475	Chlorobenzene
4485	Chloroethane
4505	Chloroform
105	Chloromethane
4645	cis-1,2-Dichloroethylene
4680	cis-1,3-Dichloropropene
4575	Dibromochloromethane
4595	Dibromomethane
4625	Dichlorodifluoromethane
4650	Dichloromethane (DCM, Methylene chloride)
4765	Ethylbenzene
4835	Hexachlorobutadiene
4900	Isopropylbenzene
5240	m+p-xylene
5000	Methyl tert-butyl ether (MTBE)
5005	Naphthalene
4435	n-Butylbenzene
5090	n-Propylbenzene
5250	o-Xylene
4910	p-Isopropyltoluene
4440	sec-Butylbenzene
5100	Styrene
4445	tert-Butylbenzene
5115	Tetrachloroethylene (Perchloroethylene)
5140	Toluene
4700	trans-1,2-Dichloroethylene

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPACode: NM00035

Hall Environmental Analysis Laboratory, Inc.4901 Hawkins Rd. NE, Suite D
Albuquerque, NM, 87109

Certificate:

NM100001-009

Issue Date: 3/1/2008

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number.
Customers: Please verify the current accreditation standing with ORELAP.

4685	trans-1,3-Dichloropropylene
5170	Trichloroethene (Trichloroethylene)
5175	Trichlorofluoromethane
5235	Vinyl chloride
5260	Xylene (total)

EPA 8270C 3	10185805	Sem/Volatile Organic compounds by GC/MS
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<u>Analyte Code</u>	<u>Analyte</u>
5155	1,2,4-Trichlorobenzene
4610	1,2-Dichlorobenzene
4615	1,3-Dichlorobenzene
4620	1,4-Dichlorobenzene
6835	2,4,5-Trichlorophenol
6840	2,4,6-Trichlorophenol
6000	2,4-Dichlorophenol
6130	2,4-Dimethylphenol
6175	2,4-Dinitrophenol
6185	2,4-Dinitrotoluene (2,4-DNT)
6190	2,6-Dinitrotoluene (2,6-DNT)
5795	2-Chloronaphthalene
5800	2-Chlorophenol
6385	2-Methylnaphthalene
6400	2-Methylphenol (o-Cresol)
6460	2-Nitroaniline
6490	2-Nitrophenol
6412	3 & 4 Methylphenol
5945	3,3'-Dichlorobenzidine
6465	3-Nitroaniline
6140	4,6-Dinitro-2-methylphenol
5660	4-Bromophenyl phenyl ether
5700	4-Chloro-3-methylphenol
5745	4-Chloroaniline
5825	4-Chlorophenyl phenylether
6470	4-Nitroaniline
6500	4-Nitrophenol
5500	Acenaphthene
5505	Acenaphthylene
5545	Aniline
5555	Anthracene
123	Azobenzene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene
5610	Benzoic acid
5630	Benzyl alcohol
5760	bis(2-Chloroethoxy)methane
5765	bis(2-Chloroethyl)ether
5780	bis(2-Chloroisopropyl)ether
6255	bis(2-Ethylhexyl)phthalate (DEHP)
5670	Butyl benzyl phthalate

ORELAP Fields of Accreditation

ORELAPID: NM100001

EPA Code: NM00035

Hall Environmental Analysis Laboratory, Inc.

4901 Hawkins Rd. NE, Suite D

Albuquerque, NM, 87109

Certificate:

NM100001-009

Issue Date: 3/1/2008

Expiration Date: 2/28/2009

As of 03/01/2008 this list supercedes all previous lists for this certificate number.

Customers: Please verify the current accreditation standing with ORELAP.

5680	Carbazole
5855	Chrysene
5895	Dibenz[a,h]anthracene
5905	Dibenzofuran
6070	Diethyl phthalate
6135	Dimethyl phthalate
5925	Di-n-butyl phthalate
6200	Di-n-octyl phthalate
6265	Fluoranthene
6270	Fluorene
6275	Hexachlorobenzene
4835	Hexachlorobutadiene
6285	Hexachlorocyclopentadiene
4840	Hexachloroethane
6315	Indeno[1,2,3-cd]pyrene
6320	Isophorone
5005	Naphthalene
5015	Nitrobenzene
6530	n-Nitrosodimethylamine
6535	n-Nitrosodiphenylamine
6540	n-Nitrosodipropylamine
6605	Pentachlorophenol
6615	Phenanthrene
6625	Phenol
6665	Pyrene
5095	Pyridine

EPA 8310

10187607

Polynuclear Aromatic Hydrocarbons by HPLC/UV-VIS

<u>Analyte Code</u>	<u>Analyte</u>
6380	1-Methylnaphthalene
6385	2-Methylnaphthalene
5500	Acenaphthene
5505	Acenaphthylene
5555	Anthracene
5575	Benzo[a]anthracene
5580	Benzo[a]pyrene
5585	Benzo[b]fluoranthene
5590	Benzo[g,h,i]perylene
5600	Benzo[k]fluoranthene
5855	Chrysene
5895	Dibenz[a,h]anthracene
6265	Fluoranthene
6270	Fluorene
6315	Indeno[1,2,3-cd]pyrene
5005	Naphthalene
6615	Phenanthrene
6665	Pyrene



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT
Field Operations Division
Drinking Water Bureau
525 Camino de Los Marquez
Santa Fe, New Mexico 87501
Telephone (505) 476-8620
Fax (505) 476-8658



RON CURRY
SECRETARY

Cindy Padilla
Deputy Secretary

March 11, 2008

Hall Environmental Analysis Laboratory Inc.
4901 Hawkins Rd. NE, Suite D
Albuquerque, NM 87109

Dear Mr. Freeman

The Drinking Water Bureau of the New Mexico Environment Department (NMED-DWB) has received and reviewed your Nelap certification /accreditation information from the state of Oregon. The documentation is acceptable and your New Mexico certification is now valid through February 29, 2009.

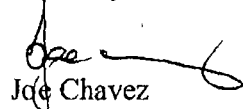
This certification is to perform drinking water analysis in compliance with the Federal Safe Drinking Water Act, pursuant 40CFR Part 141, and the New Mexico Environment Department Drinking Water Regulations for the Primary Regulated contaminants, including Contaminants in as listed in your Oregon Scope Accreditation.

You must advise NMED-DWB of any change in your accreditation by the State of Oregon and continue to provide this office with performance evaluation results. You are also required to provide evidence of renewal of accreditation by the state of Oregon to continue certification past February 29, 2009.

Laboratories certified by the New Mexico can be purged from the list if there is no evidence that they are performing drinking water compliance samples analysis for public water supply systems in New Mexico.

IF you have any questions or require additional information, please contact me at 505-476-8635.

Sincerely,


Joe Chavez

Section 11.0 Chemical Analytical Reports

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COVER LETTER

Monday, March 24, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 1st Qtr 2008

Order No.: 0803092

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr 2008
Lab Order: 0803092

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:05:00 PM
0803092-01A	TP-2	15357	EPA Method 8015B: Diesel Range	3/10/2008 12:05:00 PM
0803092-01B	TP-2	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 12:05:00 PM
0803092-02A	TP-1	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:25:00 PM
0803092-02A	TP-1	15357	EPA Method 8015B: Diesel Range	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8021B: Volatiles	3/10/2008 12:25:00 PM
0803092-02A	TP-1	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 12:25:00 PM
0803092-02B	TP-1	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 12:25:00 PM
0803092-03A	TP-6	R27765	EPA Method 8021B: Volatiles	3/10/2008 2:00:00 PM
0803092-03A	TP-6	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 2:00:00 PM
0803092-03A	TP-6	R27784	EPA Method 8021B: Volatiles	3/10/2008 2:00:00 PM
0803092-03A	TP-6	15357	EPA Method 8015B: Diesel Range	3/10/2008 2:00:00 PM
0803092-03B	TP-6	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 2:00:00 PM
0803092-04A	TP-8	15357	EPA Method 8015B: Diesel Range	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27765	EPA Method 8021B: Volatiles	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27765	EPA Method 8015B: Gasoline Range	3/10/2008 2:20:00 PM
0803092-04A	TP-8	R27784	EPA Method 8021B: Volatiles	3/10/2008 2:20:00 PM
0803092-04B	TP-8	15361	EPA 6010B: Total Recoverable Metals	3/10/2008 2:20:00 PM
0803092-05A	Trip Blank	R27784	EPA Method 8015B: Gasoline Range	
0803092-05A	Trip Blank	R27765	EPA Method 8021B: Volatiles	
0803092-05A	Trip Blank	R27765	EPA Method 8015B: Gasoline Range	
0803092-05A	Trip Blank	R27784	EPA Method 8021B: Volatiles	

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr 2008
Lab Order: 0803092

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0803092-04A: Elevated surrogate due to matrix interference.

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803092
Project: River Terrace 1st Qtr 2008
Lab ID: 0803092-01

Client Sample ID: TP-2
Collection Date: 3/10/2008 12:05:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.7	1.0		mg/L	1	3/12/2008 4:39:23 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 4:39:23 PM
Surr: DNOP	127	58-140		%REC	1	3/12/2008 4:39:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	18	1.0		mg/L	20	3/18/2008 7:17:24 PM
Surr: BFB	114	79.2-121		%REC	20	3/18/2008 7:17:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	3/18/2008 7:17:24 PM
Benzene	1200	20		µg/L	20	3/18/2008 7:17:24 PM
Toluene	ND	20		µg/L	20	3/18/2008 7:17:24 PM
Ethylbenzene	2300	100		µg/L	100	3/18/2008 11:36:37 AM
Xylenes, Total	4200	200		µg/L	100	3/18/2008 11:36:37 AM
Surr: 4-Bromofluorobenzene	100	68.9-122		%REC	20	3/18/2008 7:17:24 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.019	0.0050		mg/L	1	3/24/2008 9:15:39 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803092
Project: River Terrace 1st Qtr 2008
Lab ID: 0803092-02

Client Sample ID: TP-1
Collection Date: 3/10/2008 12:25:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.4	1.0		mg/L	1	3/12/2008 5:14:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 5:14:25 PM
Surr: DNOP	106	58-140		%REC	1	3/12/2008 5:14:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	62	2.5		mg/L	50	3/18/2008 1:39:53 PM
Surr: BFB	112	79.2-121		%REC	50	3/18/2008 1:39:53 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	3/18/2008 1:39:53 PM
Benzene	2100	50		µg/L	50	3/18/2008 1:39:53 PM
Toluene	ND	50		µg/L	50	3/18/2008 1:39:53 PM
Ethylbenzene	3400	50		µg/L	50	3/18/2008 1:39:53 PM
Xylenes, Total	20000	400		µg/L	200	3/18/2008 1:09:44 PM
Surr: 4-Bromofluorobenzene	100	68.9-122		%REC	50	3/18/2008 1:39:53 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.093	0.0050		mg/L	1	3/24/2008 9:19:39 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803092
Project: River Terrace 1st Qtr 2008
Lab ID: 0803092-03

Client Sample ID: TP-6
Collection Date: 3/10/2008 2:00:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 5:49:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 5:49:24 PM
Surr: DNOP	123	58-140		%REC	1	3/12/2008 5:49:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	1.9	0.050		mg/L	1	3/18/2008 2:40:18 PM
Surr: BFB	124	79.2-121	S	%REC	1	3/18/2008 2:40:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	2.9	2.5		µg/L	1	3/18/2008 2:40:18 PM
Benzene	24	1.0		µg/L	1	3/18/2008 2:40:18 PM
Toluene	ND	1.0		µg/L	1	3/18/2008 2:40:18 PM
Ethylbenzene	260	10		µg/L	10	3/19/2008 1:28:52 PM
Xylenes, Total	300	20		µg/L	10	3/19/2008 1:28:52 PM
Surr: 4-Bromofluorobenzene	97.8	68.9-122		%REC	10	3/19/2008 1:28:52 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.028	0.0050		mg/L	1	3/24/2008 9:23:35 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803092
Project: River Terrace 1st Qtr 2008
Lab ID: 0803092-04

Client Sample ID: TP-8
Collection Date: 3/10/2008 2:20:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	3/12/2008 6:24:23 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 6:24:23 PM
Surr: DNOP	114	58-140		%REC	1	3/12/2008 6:24:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	15	0.50		mg/L	10	3/18/2008 3:13:06 PM
Surr: BFB	116	79.2-121		%REC	10	3/18/2008 3:13:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	3/19/2008 2:01:37 PM
Benzene	ND	10		µg/L	10	3/19/2008 2:01:37 PM
Toluene	ND	10		µg/L	10	3/19/2008 2:01:37 PM
Ethylbenzene	370	10		µg/L	10	3/19/2008 2:01:37 PM
Xylenes, Total	1800	20		µg/L	10	3/19/2008 2:01:37 PM
Surr: 4-Bromofluorobenzene	112	68.9-122		%REC	10	3/19/2008 2:01:37 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.043	0.0050		mg/L	1	3/24/2008 9:26:19 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803092
Project: River Terrace 1st Qtr 2008
Lab ID: 0803092-05

Client Sample ID: Trip Blank
Collection Date:
Date Received: 3/12/2008
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/19/2008 3:04:08 PM
Surr: BFB	109	79.2-121		%REC	1	3/19/2008 3:04:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/19/2008 3:04:08 PM
Benzene	ND	1.0		µg/L	1	3/19/2008 3:04:08 PM
Toluene	ND	1.0		µg/L	1	3/19/2008 3:04:08 PM
Ethylbenzene	ND	1.0		µg/L	1	3/19/2008 3:04:08 PM
Xylenes, Total	ND	2.0		µg/L	1	3/19/2008 3:04:08 PM
Surr: 4-Bromofluorobenzene	96.5	68.9-122		%REC	1	3/19/2008 3:04:08 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr 2008

Work Order: 0803092

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-15357		MBLK			Batch ID: 15357		Analysis Date: 3/12/2008 2:54:22 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.080	mg/L	0	108	58	140			
Sample ID: LCS-15357		LCS			Batch ID: 15357		Analysis Date: 3/12/2008 3:29:23 PM		
Diesel Range Organics (DRO)	5.748	mg/L	1.0	115	74	157			
Surr: DNOP	0.6257	mg/L	0	125	58	140			
Sample ID: LCSD-15357		LCSD			Batch ID: 15357		Analysis Date: 3/12/2008 4:04:23 PM		
Diesel Range Organics (DRO)	5.630	mg/L	1.0	113	74	157	2.08	23	
Surr: DNOP	0.6096	mg/L	0	122	58	140	0	0	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		MBLK			Batch ID: R27765		Analysis Date: 3/18/2008 9:00:31 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.75	mg/L	0	104	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R27765		Analysis Date: 3/18/2008 8:48:09 PM		
Gasoline Range Organics (GRO)	0.4530	mg/L	0.050	90.6	80	115			
Surr: BFB	21.78	mg/L	0	109	79.2	121			
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		MBLK			Batch ID: R27765		Analysis Date: 3/18/2008 9:00:31 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.95	µg/L	0	89.8	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R27765		Analysis Date: 3/18/2008 10:48:50 PM		
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	97.9	51.2	138			
Benzene	21.01	µg/L	1.0	105	85.9	113			
Toluene	21.55	µg/L	1.0	108	86.4	113			
Ethylbenzene	21.70	µg/L	1.0	108	83.5	118			
Xylenes, Total	64.57	µg/L	2.0	107	83.4	122			
Surr: 4-Bromofluorobenzene	20.58	µg/L	0	103	68.9	122			
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0803092-04B MSD		MSD			Batch ID: 15361		Analysis Date: 3/24/2008 9:41:29 AM		
Lead	0.5362	mg/L	0.0050	98.7	75	125	0.0558	20	
Sample ID: MB-15361		MBLK			Batch ID: 15361		Analysis Date: 3/24/2008 8:11:13 AM		
Lead	ND	mg/L	0.0050						
Sample ID: LCS-15361		LCS			Batch ID: 15361		Analysis Date: 3/24/2008 8:14:16 AM		
Lead	0.4891	mg/L	0.0050	97.8	80	120			
Sample ID: 0803092-04B MS		MS			Batch ID: 15361		Analysis Date: 3/24/2008 9:28:22 AM		
Lead	0.5359	mg/L	0.0050	98.7	75	125			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/12/2008

Work Order Number 0803092

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by

Initials

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

4°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action



COVER LETTER

Thursday, March 27, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 1st Qtr 2008

Order No.: 0803094

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr 2008
Lab Order: 0803094

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803094-01A	TP-7	R27721	EPA Method 8021B: Volatiles	3/11/2008 9:35:00 AM
0803094-01A	TP-7	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 9:35:00 AM
0803094-01A	TP-7	15357	EPA Method 8015B: Diesel Range	3/11/2008 9:35:00 AM
0803094-01B	TP-7	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 9:35:00 AM
0803094-02A	TP-9	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:05:00 AM
0803094-02A	TP-9	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:05:00 AM
0803094-02A	TP-9	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:05:00 AM
0803094-02B	TP-9	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:05:00 AM
0803094-03A	TP-9 FD	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:15:00 AM
0803094-03A	TP-9 FD	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:15:00 AM
0803094-03A	TP-9 FD	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:15:00 AM
0803094-03B	TP-9 FD	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:15:00 AM
0803094-04A	TP-5	15357	EPA Method 8015B: Diesel Range	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8021B: Volatiles	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:35:00 AM
0803094-04A	TP-5	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 10:35:00 AM
0803094-04B	TP-5	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 10:35:00 AM
0803094-05A	DW-#1	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 11:15:00 AM
0803094-05A	DW-#1	R27721	EPA Method 8021B: Volatiles	3/11/2008 11:15:00 AM
0803094-05A	DW-#1	15357	EPA Method 8015B: Diesel Range	3/11/2008 11:15:00 AM
0803094-05B	DW-#1	15373	EPA Method 7470: Mercury	3/11/2008 11:15:00 AM
0803094-05B	DW-#1	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 11:15:00 AM
0803094-06A	MW-#49	15357	EPA Method 8015B: Diesel Range	3/11/2008 11:40:00 AM
0803094-06A	MW-#49	R27721	EPA Method 8021B: Volatiles	3/11/2008 11:40:00 AM
0803094-06A	MW-#49	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 11:40:00 AM
0803094-06B	MW-#49	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 11:40:00 AM
0803094-07A	TP-10	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 1:20:00 PM
0803094-07A	TP-10	15357	EPA Method 8015B: Diesel Range	3/11/2008 1:20:00 PM
0803094-07A	TP-10	R27721	EPA Method 8021B: Volatiles	3/11/2008 1:20:00 PM
0803094-07B	TP-10	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 1:20:00 PM
0803094-08A	TP-3	R27721	EPA Method 8021B: Volatiles	3/11/2008 1:40:00 PM
0803094-08A	TP-3	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 1:40:00 PM
0803094-08A	TP-3	15357	EPA Method 8015B: Diesel Range	3/11/2008 1:40:00 PM
0803094-08B	TP-3	15361	EPA 6010B: Total Recoverable Metals	3/11/2008 1:40:00 PM
0803094-09A	Field Blank	15357	EPA Method 8015B: Diesel Range	3/11/2008 2:00:00 PM
0803094-09A	Field Blank	R27721	EPA Method 8021B: Volatiles	3/11/2008 2:00:00 PM
0803094-09A	Field Blank	R27721	EPA Method 8015B: Gasoline Range	3/11/2008 2:00:00 PM

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr 2008
Lab Order: 0803094

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803094-10A	Trip Blank	R27721	EPA Method 8015B: Gasoline Range	
0803094-10A	Trip Blank	R27721	EPA Method 8021B: Volatiles	

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-01

Client Sample ID: TP-7
Collection Date: 3/11/2008 9:35:00 AM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 6:59:23 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 6:59:23 PM
Surr: DNOP	104	58-140		%REC	1	3/12/2008 6:59:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 6:33:08 AM
Surr: BFB	120	79.2-121		%REC	1	3/15/2008 6:33:08 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 6:33:08 AM
Benzene	ND	1.0		µg/L	1	3/15/2008 6:33:08 AM
Toluene	ND	1.0		µg/L	1	3/15/2008 6:33:08 AM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 6:33:08 AM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 6:33:08 AM
Surr: 4-Bromofluorobenzene	106	68.9-122		%REC	1	3/15/2008 6:33:08 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	3/24/2008 8:17:09 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-02

Client Sample ID: TP-9
Collection Date: 3/11/2008 10:05:00 AM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 7:34:19 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 7:34:19 PM
Surr: DNOP	114	58-140		%REC	1	3/12/2008 7:34:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 7:03:10 AM
Surr: BFB	119	79.2-121		%REC	1	3/15/2008 7:03:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 7:03:10 AM
Benzene	ND	1.0		µg/L	1	3/15/2008 7:03:10 AM
Toluene	ND	1.0		µg/L	1	3/15/2008 7:03:10 AM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 7:03:10 AM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 7:03:10 AM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	3/15/2008 7:03:10 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.0087	0.0050		mg/L	1	3/24/2008 8:24:02 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-03

Client Sample ID: TP-9 FD
Collection Date: 3/11/2008 10:15:00 AM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 8:09:24 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 8:09:24 PM
Surr: DNOP	120	58-140		%REC	1	3/12/2008 8:09:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 7:33:26 AM
Surr: BFB	111	79.2-121		%REC	1	3/15/2008 7:33:26 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 7:33:26 AM
Benzene	ND	1.0		µg/L	1	3/15/2008 7:33:26 AM
Toluene	ND	1.0		µg/L	1	3/15/2008 7:33:26 AM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 7:33:26 AM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 7:33:26 AM
Surr: 4-Bromofluorobenzene	96.3	68.9-122		%REC	1	3/15/2008 7:33:26 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.0063	0.0050		mg/L	1	3/24/2008 8:28:01 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-04

Client Sample ID: TP-5
Collection Date: 3/11/2008 10:35:00 AM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 9:18:42 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 9:18:42 PM
Surr: DNOP	110	58-140		%REC	1	3/12/2008 9:18:42 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	52	1.0		mg/L	20	3/15/2008 8:33:48 AM
Surr: BFB	116	79.2-121		%REC	20	3/15/2008 8:33:48 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	3/15/2008 8:33:48 AM
Benzene	ND	20		µg/L	20	3/15/2008 8:33:48 AM
Toluene	ND	20		µg/L	20	3/15/2008 8:33:48 AM
Ethylbenzene	1600	20		µg/L	20	3/15/2008 8:33:48 AM
Xylenes, Total	17000	500		µg/L	250	3/15/2008 8:03:36 AM
Surr: 4-Bromofluorobenzene	109	68.9-122		%REC	20	3/15/2008 8:33:48 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.051	0.0050		mg/L	1	3/24/2008 8:32:03 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-05

Client Sample ID: DW-#1
Collection Date: 3/11/2008 11:15:00 AM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 9:53:21 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 9:53:21 PM
Surr: DNOP	105	58-140		%REC	1	3/12/2008 9:53:21 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 11:04:09 AM
Surr: BFB	116	79.2-121		%REC	1	3/15/2008 11:04:09 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 11:04:09 AM
Benzene	ND	1.0		µg/L	1	3/15/2008 11:04:09 AM
Toluene	ND	1.0		µg/L	1	3/15/2008 11:04:09 AM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 11:04:09 AM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 11:04:09 AM
Surr: 4-Bromofluorobenzene	103	68.9-122		%REC	1	3/15/2008 11:04:09 AM
EPA METHOD 7470: MERCURY						Analyst: SNV
Mercury	ND	0.00020		mg/L	1	3/14/2008 4:51:21 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	3/24/2008 8:34:49 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
 Lab Order: 0803094
 Project: River Terrace 1st Qtr 2008
 Lab ID: 0803094-06

Client Sample ID: MW-#49
 Collection Date: 3/11/2008 11:40:00 AM
 Date Received: 3/12/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 10:28:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 10:28:04 PM
Surr: DNOP	111	58-140		%REC	1	3/12/2008 10:28:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.090	0.050		mg/L	1	3/15/2008 11:34:36 AM
Surr: BFB	121	79.2-121	S	%REC	1	3/15/2008 11:34:36 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 11:34:36 AM
Benzene	ND	1.0		µg/L	1	3/15/2008 11:34:36 AM
Toluene	ND	1.0		µg/L	1	3/15/2008 11:34:36 AM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 11:34:36 AM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 11:34:36 AM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	3/15/2008 11:34:36 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	3/24/2008 8:38:36 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-07

Client Sample ID: TP-10
Collection Date: 3/11/2008 1:20:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 11:03:31 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 11:03:31 PM
Surr: DNOP	118	58-140		%REC	1	3/12/2008 11:03:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 12:05:03 PM
Surr: BFB	115	79.2-121		%REC	1	3/15/2008 12:05:03 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 12:05:03 PM
Benzene	ND	1.0		µg/L	1	3/15/2008 12:05:03 PM
Toluene	ND	1.0		µg/L	1	3/15/2008 12:05:03 PM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 12:05:03 PM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 12:05:03 PM
Surr: 4-Bromofluorobenzene	102	68.9-122		%REC	1	3/15/2008 12:05:03 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	3/24/2008 8:42:26 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-08

Client Sample ID: TP-3
Collection Date: 3/11/2008 1:40:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 11:38:10 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 11:38:10 PM
Surr: DNOP	112	58-140		%REC	1	3/12/2008 11:38:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 12:35:27 PM
Surr: BFB	118	79.2-121		%REC	1	3/15/2008 12:35:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 12:35:27 PM
Benzene	ND	1.0		µg/L	1	3/15/2008 12:35:27 PM
Toluene	ND	1.0		µg/L	1	3/15/2008 12:35:27 PM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 12:35:27 PM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 12:35:27 PM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	3/15/2008 12:35:27 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	3/24/2008 8:45:19 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-09

Client Sample ID: Field Blank
Collection Date: 3/11/2008 2:00:00 PM
Date Received: 3/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/13/2008 12:12:35 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/13/2008 12:12:35 AM
Surr: DNOP	111	58-140		%REC	1	3/13/2008 12:12:35 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 1:05:45 PM
Surr: BFB	118	79.2-121		%REC	1	3/15/2008 1:05:45 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 1:05:45 PM
Benzene	ND	1.0		µg/L	1	3/15/2008 1:05:45 PM
Toluene	ND	1.0		µg/L	1	3/15/2008 1:05:45 PM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 1:05:45 PM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 1:05:45 PM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	3/15/2008 1:05:45 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803094
Project: River Terrace 1st Qtr 2008
Lab ID: 0803094-10

Client Sample ID: Trip Blank
Collection Date:
Date Received: 3/12/2008
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/15/2008 1:36:00 PM
Surr: BFB	117	79.2-121		%REC	1	3/15/2008 1:36:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/15/2008 1:36:00 PM
Benzene	ND	1.0		µg/L	1	3/15/2008 1:36:00 PM
Toluene	ND	1.0		µg/L	1	3/15/2008 1:36:00 PM
Ethylbenzene	ND	1.0		µg/L	1	3/15/2008 1:36:00 PM
Xylenes, Total	ND	2.0		µg/L	1	3/15/2008 1:36:00 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/15/2008 1:36:00 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/15/2008 1:36:00 PM
Surr: 4-Bromofluorobenzene	103	68.9-122		%REC	1	3/15/2008 1:36:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr 2008

Work Order: 0803094

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-15357		<i>MBLK</i>							
					Batch ID: 15357		Analysis Date: 3/12/2008 2:54:22 PM		
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.080	mg/L	0	108	58	140			
Sample ID: LCS-15357		<i>LCS</i>							
					Batch ID: 15357		Analysis Date: 3/12/2008 3:29:23 PM		
Diesel Range Organics (DRO)	5.748	mg/L	1.0	115	74	157			
Surr: DNOP	0.6257	mg/L	0	125	58	140			
Sample ID: LCSD-15357		<i>LCSD</i>							
					Batch ID: 15357		Analysis Date: 3/12/2008 4:04:23 PM		
Diesel Range Organics (DRO)	5.630	mg/L	1.0	113	74	157	2.08	23	
Surr: DNOP	0.6096	mg/L	0	122	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0803094-07A MSD		<i>MSD</i>							
					Batch ID: R27721		Analysis Date: 3/16/2008 9:21:41 PM		
Gasoline Range Organics (GRO)	0.2832	mg/L	0.050	92.5	80	115	6.43	8.39	
Surr: BFB	27.32	mg/L	0	137	79.2	121	0	0	S
Sample ID: 5ML RB		<i>MBLK</i>							
					Batch ID: R27721		Analysis Date: 3/14/2008 9:09:49 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB ₁	19.40	mg/L	0	97.0	79.2	121			
Sample ID: 100NG BTEX LCS		<i>LCS</i>							
					Batch ID: R27721		Analysis Date: 3/15/2008 12:53:29 AM		
Gasoline Range Organics (GRO)	0.3042	mg/L	0.050	99.4	80	115			
Surr: BFB	22.99	mg/L	0	115	79.2	121			
Sample ID: 0803094-07A MS		<i>MS</i>							
					Batch ID: R27721		Analysis Date: 3/16/2008 8:51:21 PM		
Gasoline Range Organics (GRO)	0.3020	mg/L	0.050	98.7	80	115			
Surr: BFB	25.77	mg/L	0	129	79.2	121			S

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 1st Qtr 2008

Work Order: 0803094

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 0803094-07A MSD

MSD

Batch ID: R27721 Analysis Date: 3/16/2008 9:21:41 PM

Methyl tert-butyl ether (MTBE)	19.35	µg/L	2.5	96.8	51.2	138	0.799	28	
Benzene	20.37	µg/L	1.0	102	85.9	113	3.24	27	
Toluene	20.50	µg/L	1.0	102	86.4	113	4.05	19	
Ethylbenzene	20.64	µg/L	1.0	102	83.5	118	4.48	10	
Xylenes, Total	62.01	µg/L	2.0	102	83.4	122	5.32	13	
1,2,4-Trimethylbenzene	19.48	µg/L	1.0	96.4	83.5	115	9.00	21	
1,3,5-Trimethylbenzene	19.76	µg/L	1.0	98.4	85.2	113	7.57	10	
Surr: 4-Bromofluorobenzene	24.58	µg/L	0	123	68.9	122	0	0	S

Sample ID: 5ML RB

MBLK

Batch ID: R27721 Analysis Date: 3/14/2008 9:09:49 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Surr: 4-Bromofluorobenzene	16.91	µg/L	0	84.5	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R27721 Analysis Date: 3/15/2008 12:53:29 AM

Methyl tert-butyl ether (MTBE)	20.45	µg/L	2.5	102	51.2	138			
Benzene	20.93	µg/L	1.0	105	85.9	113			
Toluene	21.34	µg/L	1.0	107	86.4	113			
Ethylbenzene	21.66	µg/L	1.0	108	83.5	118			
Xylenes, Total	64.75	µg/L	2.0	108	83.4	122			
1,2,4-Trimethylbenzene	21.60	µg/L	1.0	108	83.5	115			
1,3,5-Trimethylbenzene	21.90	µg/L	1.0	109	85.2	113			
Surr: 4-Bromofluorobenzene	20.47	µg/L	0	102	68.9	122			

Sample ID: 0803094-07A MS

MS

Batch ID: R27721 Analysis Date: 3/16/2008 8:51:21 PM

Methyl tert-butyl ether (MTBE)	19.20	µg/L	2.5	96.0	51.2	138			
Benzene	21.04	µg/L	1.0	105	85.9	113			
Toluene	21.35	µg/L	1.0	106	86.4	113			
Ethylbenzene	21.58	µg/L	1.0	107	83.5	118			
Xylenes, Total	65.40	µg/L	2.0	108	83.4	122			
1,2,4-Trimethylbenzene	21.32	µg/L	1.0	106	83.5	115			
1,3,5-Trimethylbenzene	21.31	µg/L	1.0	106	85.2	113			
Surr: 4-Bromofluorobenzene	22.94	µg/L	0	115	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr 2008

Work Order: 0803094

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 7470: Mercury

Sample ID: 0803094-05B MSD		MSD				Batch ID: 15373	Analysis Date: 3/14/2008 4:56:45 PM
Mercury	0.005201	mg/L	0.00020	102	75	125	1.75 20
Sample ID: MB-15373		MBLK				Batch ID: 15373	Analysis Date: 3/14/2008 4:06:23 PM
Mercury	ND	mg/L	0.00020				
Sample ID: LCS-15373		LCS				Batch ID: 15373	Analysis Date: 3/14/2008 4:08:07 PM
Mercury	0.004789	mg/L	0.00020	94.2	80	120	
Sample ID: 0803094-05B MS		MS				Batch ID: 15373	Analysis Date: 3/14/2008 4:54:58 PM
Mercury	0.005111	mg/L	0.00020	100	75	125	

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-15361		MBLK			Batch ID: 15361	Analysis Date: 3/24/2008 8:11:13 AM
Lead	ND	mg/L	0.0050			
Sample ID: LCS-15361		LCS			Batch ID: 15361	Analysis Date: 3/24/2008 8:14:16 AM
Lead	0.4891	mg/L	0.0050	97.8	80	120

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/12/2008

Work Order Number 0803094

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by

Initials

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

Corrective Action

COVER LETTER

Thursday, March 27, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 1st Qtr 2008

Order No.: 0803116

Dear Cindy Hurtado:

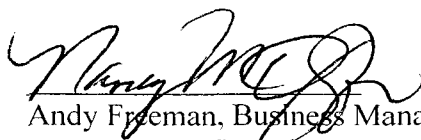
Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr 2008
Lab Order: 0803116

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803116-01A	TP-11	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 10:50:00 AM
0803116-01A	TP-11	R27765	EPA Method 8021B: Volatiles	3/12/2008 10:50:00 AM
0803116-01A	TP-11	15387	EPA Method 8015B: Diesel Range	3/12/2008 10:50:00 AM
0803116-01B	TP-11	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 10:50:00 AM
0803116-02A	TP-13	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 11:10:00 AM
0803116-02A	TP-13	R27765	EPA Method 8021B: Volatiles	3/12/2008 11:10:00 AM
0803116-02A	TP-13	15387	EPA Method 8015B: Diesel Range	3/12/2008 11:10:00 AM
0803116-02B	TP-13	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 11:10:00 AM
0803116-03A	TP-12	R27765	EPA Method 8015B: Gasoline Range	3/12/2008 11:25:00 AM
0803116-03A	TP-12	R27765	EPA Method 8021B: Volatiles	3/12/2008 11:25:00 AM
0803116-03A	TP-12	15387	EPA Method 8015B: Diesel Range	3/12/2008 11:25:00 AM
0803116-03B	TP-12	15367	EPA 6010B: Total Recoverable Metals	3/12/2008 11:25:00 AM
0803116-04A	Trip Blank	R27765	EPA Method 8015B: Gasoline Range	
0803116-04A	Trip Blank	R27765	EPA Method 8021B: Volatiles	

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803116
Project: River Terrace 1st Qtr 2008
Lab ID: 0803116-01

Client Sample ID: TP-11
Collection Date: 3/12/2008 10:50:00 AM
Date Received: 3/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/17/2008 6:26:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/17/2008 6:26:04 PM
Surr: DNOP	105	58-140		%REC	1	3/17/2008 6:26:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/18/2008 4:13:32 PM
Surr: BFB	106	79.2-121		%REC	1	3/18/2008 4:13:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/18/2008 4:13:32 PM
Benzene	ND	1.0		µg/L	1	3/18/2008 4:13:32 PM
Toluene	ND	1.0		µg/L	1	3/18/2008 4:13:32 PM
Ethylbenzene	ND	1.0		µg/L	1	3/18/2008 4:13:32 PM
Xylenes, Total	ND	2.0		µg/L	1	3/18/2008 4:13:32 PM
Surr: 4-Bromofluorobenzene	93.2	68.9-122		%REC	1	3/18/2008 4:13:32 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	ND	0.0050		mg/L	1	3/15/2008 10:43:18 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803116
Project: River Terrace 1st Qtr 2008
Lab ID: 0803116-02

Client Sample ID: TP-13
Collection Date: 3/12/2008 11:10:00 AM
Date Received: 3/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/17/2008 7:00:45 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/17/2008 7:00:45 PM
Surr: DNOP	105	58-140		%REC	1	3/17/2008 7:00:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/18/2008 4:43:42 PM
Surr: BFB	104	79.2-121		%REC	1	3/18/2008 4:43:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/18/2008 4:43:42 PM
Benzene	ND	1.0		µg/L	1	3/18/2008 4:43:42 PM
Toluene	ND	1.0		µg/L	1	3/18/2008 4:43:42 PM
Ethylbenzene	ND	1.0		µg/L	1	3/18/2008 4:43:42 PM
Xylenes, Total	ND	2.0		µg/L	1	3/18/2008 4:43:42 PM
Sdrr: 4-Bromofluorobenzene	90.7	68.9-122		%REC	1	3/18/2008 4:43:42 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	ND	0.0050		mg/L	1	3/15/2008 10:46:21 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803116
Project: River Terrace 1st Qtr 2008
Lab ID: 0803116-03

Client Sample ID: TP-12
Collection Date: 3/12/2008 11:25:00 AM
Date Received: 3/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/17/2008 8:10:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/17/2008 8:10:05 PM
Surr: DNOP	105	58-140		%REC	1	3/17/2008 8:10:05 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/18/2008 5:13:57 PM
Surr: BFB	106	79.2-121		%REC	1	3/18/2008 5:13:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/18/2008 5:13:57 PM
Benzene	ND	1.0		µg/L	1	3/18/2008 5:13:57 PM
Toluene	ND	1.0		µg/L	1	3/18/2008 5:13:57 PM
Ethylbenzene	ND	1.0		µg/L	1	3/18/2008 5:13:57 PM
Xylenes, Total	ND	2.0		µg/L	1	3/18/2008 5:13:57 PM
Surr: 4-Bromofluorobenzene	91.0	68.9-122		%REC	1	3/18/2008 5:13:57 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.0062	0.0050		mg/L	1	3/15/2008 10:49:30 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 27-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803116
Project: River Terrace 1st Qtr 2008
Lab ID: 0803116-04

Client Sample ID: Trip Blank
Collection Date:
Date Received: 3/13/2008
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/18/2008 6:44:34 PM
Surr: BFB	105	79.2-121		%REC	1	3/18/2008 6:44:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/18/2008 6:44:34 PM
Benzene	ND	1.0		µg/L	1	3/18/2008 6:44:34 PM
Toluene	ND	1.0		µg/L	1	3/18/2008 6:44:34 PM
Ethylbenzene	ND	1.0		µg/L	1	3/18/2008 6:44:34 PM
Xylenes, Total	ND	2.0		µg/L	1	3/18/2008 6:44:34 PM
Surr: 4-Bromofluorobenzene	91.1	68.9-122		%REC	1	3/18/2008 6:44:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 1st Qtr 2008

Work Order: 0803116

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-15387		MBLK							
					Batch ID: 15387	Analysis Date: 3/17/2008 1:48:26 PM			
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.140	mg/L	0	114	58	140			
Sample ID: LCS-15387		LCS			Batch ID: 15387	Analysis Date: 3/17/2008 2:23:07 PM			
Diesel Range Organics (DRO)	5.118	mg/L	1.0	102	74	157			
Surr: DNOP	0.5576	mg/L	0	112	58	140			
Sample ID: LCSD-15387		LCSD			Batch ID: 15387	Analysis Date: 3/17/2008 2:57:56 PM			
Diesel Range Organics (DRO)	5.623	mg/L	1.0	112	74	157	9.39	23	
Surr: DNOP	0.5868	mg/L	0	117	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB		MBLK							
					Batch ID: R27765	Analysis Date: 3/18/2008 9:00:31 AM			
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.75	mg/L	0	104	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R27765	Analysis Date: 3/18/2008 8:48:09 PM			
Gasoline Range Organics (GRO)	0.4530	mg/L	0.050	90.6	80	115			
Surr: BFB	21.78	mg/L	0	109	79.2	121			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr 2008

Work Order: 0803116

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0803116-03A MSD		<i>MSD</i>			Batch ID: R27765	Analysis Date: 3/18/2008 10:18:47 PM			
Methyl tert-butyl ether (MTBE)	19.83	µg/L	2.5	95.8	51.2	138	1.25	28	
Benzene	21.35	µg/L	1.0	106	85.9	113	0.960	27	
Toluene	21.76	µg/L	1.0	109	86.4	113	3.47	19	
Ethylbenzene	21.73	µg/L	1.0	107	83.5	118	2.97	10	
Xylenes, Total	64.91	µg/L	2.0	107	83.4	122	2.41	13	
Surr: 4-Bromofluorobenzene	20.01	µg/L	0	100	68.9	122	0	0	
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R27765	Analysis Date: 3/18/2008 9:00:31 AM			
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.95	µg/L	0	89.8	68.9	122			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R27765	Analysis Date: 3/18/2008 10:48:50 PM			
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	97.9	51.2	138			
Benzene	21.01	µg/L	1.0	105	85.9	113			
Toluene	21.55	µg/L	1.0	108	86.4	113			
Ethylbenzene	21.70	µg/L	1.0	108	83.5	118			
Xylenes, Total	64.57	µg/L	2.0	107	83.4	122			
Surr: 4-Bromofluorobenzene	20.58	µg/L	0	103	68.9	122			
Sample ID: 0803116-03A MS		<i>MS</i>			Batch ID: R27765	Analysis Date: 3/18/2008 9:48:39 PM			
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	94.6	51.2	138			
Benzene	21.55	µg/L	1.0	107	85.9	113			
Toluene	22.52	µg/L	1.0	113	86.4	113			
Ethylbenzene	22.38	µg/L	1.0	110	83.5	118			
Xylenes, Total	66.49	µg/L	2.0	110	83.4	122			
Surr: 4-Bromofluorobenzene	19.99	µg/L	0	99.9	68.9	122			

Method: EPA 6010B: Total Recoverable Metals

Sample ID: 0803116-03B MSD		<i>MSD</i>			Batch ID: 15367	Analysis Date: 3/15/2008 10:56:10 AM			
Lead	0.4575	mg/L	0.0050	90.3	75	125	1.77	20	
Sample ID: 0803116-03B MS		<i>MS</i>			Batch ID: 15367	Analysis Date: 3/15/2008 10:52:34 AM			
Lead	0.4494	mg/L	0.0050	88.7	75	125			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/13/2008

Work Order Number 0803116

Received by: ARS

Checklist completed by:

Signature

3/13/08
Date

Sample ID labels checked by

AS
Initials

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

(western Refining)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.
------	------	--------	-----------------

3/12/08	1050A	H2O	TP-11
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111A	H ₂ O	TP-13
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	7	9	
/	=	/	/

71-11	004	15911
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Trip Blank 3/13

Date: 10/10/2019 Time: 3:20

Relinquished By: (Signature) *[Signature]*

Date: _____ Time: _____

Relinquished By: (Signature)

QA/QC Package:

Std ☐ Level 4 ☒

Other:

Project Name:

River Terrace 151 QTR 2008

Project #:

Project Manager:

Samuel J. Park

Sample Temperature: 23

Number/Volume

HEAL No.

0803116

4-10A

1500

4-Volts

1-506

4-10A

1-500

Received By: Signature)

Received By: (Signature)

COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 2nd QTR 2008

Order No.: 0805219

Dear Cindy Hurtado:

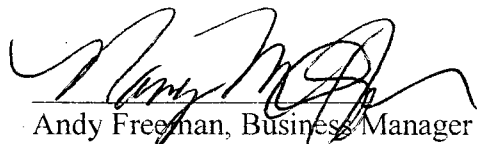
Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 5/15/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Project: River Terrace 2nd QTR 2008
Lab Order: 0805219

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805219-01A	MW #49	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:20:00 AM
0805219-01A	MW #49	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:20:00 AM
0805219-01A	MW #49	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:20:00 AM
0805219-01B	MW #49	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:20:00 AM
0805219-02A	TP-8	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:35:00 AM
0805219-02A	TP-8	R28636	EPA Method 8021B: Volatiles	5/14/2008 10:35:00 AM
0805219-02B	TP-8	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:35:00 AM
0805219-03A	TP-7	15958	EPA Method 8015B: Diesel Range	5/14/2008 10:50:00 AM
0805219-03A	TP-7	R28629	EPA Method 8021B: Volatiles	5/14/2008 10:50:00 AM
0805219-03A	TP-7	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 10:50:00 AM
0805219-03B	TP-7	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 10:50:00 AM
0805219-04A	TP-6	15958	EPA Method 8015B: Diesel Range	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:10:00 AM
0805219-04A	TP-6	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:10:00 AM
0805219-04B	TP-6	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 11:10:00 AM
0805219-05A	DW #1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 11:45:00 AM
0805219-05A	DW #1	15958	EPA Method 8015B: Diesel Range	5/14/2008 11:45:00 AM
0805219-05A	DW #1	R28629	EPA Method 8021B: Volatiles	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16019	EPA Method 7470: Mercury	5/14/2008 11:45:00 AM
0805219-05B	DW #1	16019	EPA Method 7470: Mercury	5/14/2008 11:45:00 AM
0805219-06A	TP-9	15958	EPA Method 8015B: Diesel Range	5/14/2008 12:00:00 PM
0805219-06A	TP-9	R28629	EPA Method 8021B: Volatiles	5/14/2008 12:00:00 PM
0805219-06A	TP-9	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 12:00:00 PM
0805219-06B	TP-9	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 12:00:00 PM
0805219-07A	TP-1	R28636	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07A	TP-1	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:20:00 PM
0805219-07A	TP-1	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:20:00 PM
0805219-07B	TP-1	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:20:00 PM
0805219-08A	TP-1FD	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:25:00 PM

CLIENT: San Juan Refining
Project: River Terrace 2nd QTR 2008
Lab Order: 0805219

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805219-08A	TP-1FD	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	R28636	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08A	TP-1FD	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:25:00 PM
0805219-08B	TP-1FD	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:25:00 PM
0805219-09A	TP-2	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:40:00 PM
0805219-09A	TP-2	15958	EPA Method 8015B: Diesel Range	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8021B: Volatiles	5/14/2008 1:40:00 PM
0805219-09A	TP-2	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 1:40:00 PM
0805219-09B	TP-2	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 1:40:00 PM
0805219-10A	TP-5	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:00:00 PM
0805219-10A	TP-5	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:00:00 PM
0805219-10A	TP-5	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:00:00 PM
0805219-10B	TP-5	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:00:00 PM
0805219-11A	TP-12	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:10:00 PM
0805219-11A	TP-12	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:10:00 PM
0805219-11A	TP-12	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:10:00 PM
0805219-11B	TP-12	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:10:00 PM
0805219-12A	TP-13	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:30:00 PM
0805219-12A	TP-13	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:30:00 PM
0805219-12A	TP-13	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:30:00 PM
0805219-12B	TP-13	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:30:00 PM
0805219-13A	TP-11	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:50:00 PM
0805219-13A	TP-11	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:50:00 PM
0805219-13A	TP-11	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:50:00 PM
0805219-13B	TP-11	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 2:50:00 PM
0805219-14A	FIELD BLANK	15958	EPA Method 8015B: Diesel Range	5/14/2008 2:40:00 PM
0805219-14A	FIELD BLANK	R28629	EPA Method 8021B: Volatiles	5/14/2008 2:40:00 PM
0805219-14A	FIELD BLANK	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 2:40:00 PM
0805219-15A	TP-10	15958	EPA Method 8015B: Diesel Range	5/14/2008 3:00:00 PM
0805219-15A	TP-10	R28629	EPA Method 8021B: Volatiles	5/14/2008 3:00:00 PM
0805219-15A	TP-10	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 3:00:00 PM
0805219-15B	TP-10	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 3:00:00 PM
0805219-16A	TP-3	15958	EPA Method 8015B: Diesel Range	5/14/2008 3:15:00 PM
0805219-16A	TP-3	R28629	EPA Method 8021B: Volatiles	5/14/2008 3:15:00 PM
0805219-16A	TP-3	R28629	EPA Method 8015B: Gasoline Range	5/14/2008 3:15:00 PM
0805219-16B	TP-3	16013	EPA 6010B: Total Recoverable Metals	5/14/2008 3:15:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining**Client Sample ID:** MW #49**Lab Order:** 0805219**Collection Date:** 5/14/2008 10:20:00 AM**Project:** River Terrace 2nd QTR 2008**Date Received:** 5/15/2008**Lab ID:** 0805219-01**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 1:36:15 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 1:36:15 PM
Surr: DNOP	116	58-140		%REC	1	5/16/2008 1:36:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	0.25	0.050		mg/L	1	5/21/2008 12:43:27 PM
Surr: BFB	110	79.2-121		%REC	1	5/21/2008 12:43:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 12:43:27 PM
Benzene	1.8	1.0		µg/L	1	5/21/2008 12:43:27 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 12:43:27 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 12:43:27 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 12:43:27 PM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	5/21/2008 12:43:27 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.066	0.020		mg/L	1	5/23/2008 11:44:01 AM
Chromium	ND	0.0060		mg/L	1	5/23/2008 11:44:01 AM
Lead	ND	0.0050		mg/L	1	5/23/2008 11:44:01 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-02

Client Sample ID: TP-8
Collection Date: 5/14/2008 10:35:00 AM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	5/16/2008 2:10:22 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 2:10:22 PM
Surr: DNOP	118	58-140		%REC	1	5/16/2008 2:10:22 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	19	0.50		mg/L	10	5/21/2008 1:16:02 PM
Surr: BFB	110	79.2-121		%REC	10	5/21/2008 1:16:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	5/21/2008 1:16:02 PM
Benzene	ND	10		µg/L	10	5/21/2008 1:16:02 PM
Toluene	ND	10		µg/L	10	5/21/2008 1:16:02 PM
Ethylbenzene	390	10		µg/L	10	5/21/2008 1:16:02 PM
Xylenes, Total	2400	100		µg/L	50	5/22/2008 1:45:43 PM
Surr: 4-Bromofluorobenzene	108	68.9-122		%REC	10	5/21/2008 1:16:02 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.070	0.020		mg/L	1	5/23/2008 11:47:50 AM
Chromium	ND	0.0060		mg/L	1	5/23/2008 11:47:50 AM
Lead	0.036	0.0050		mg/L	1	5/23/2008 11:47:50 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-03

Client Sample ID: TP-7
Collection Date: 5/14/2008 10:50:00 AM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 2:44:29 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 2:44:29 PM
Surr: DNOP	120	58-140		%REC	1	5/16/2008 2:44:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/21/2008 1:46:09 PM
Surr: BFB	99.3	79.2-121		%REC	1	5/21/2008 1:46:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 1:46:09 PM
Benzene	ND	1.0		µg/L	1	5/21/2008 1:46:09 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 1:46:09 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 1:46:09 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 1:46:09 PM
Surr: 4-Bromofluorobenzene	97.3	68.9-122		%REC	1	5/21/2008 1:46:09 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.032	0.020		mg/L	1	5/23/2008 11:51:39 AM
Chromium	ND	0.0060		mg/L	1	5/23/2008 11:51:39 AM
Lead	0.0067	0.0050		mg/L	1	5/23/2008 11:51:39 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-6

Lab Order: 0805219

Collection Date: 5/14/2008 11:10:00 AM

Project: River Terrace 2nd QTR 2008

Date Received: 5/15/2008

Lab ID: 0805219-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 3:18:36 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 3:18:36 PM
Surr: DNOP	117	58-140		%REC	1	5/16/2008 3:18:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	1.2	0.050		mg/L	1	5/21/2008 2:49:04 PM
Surr: BFB	112	79.2-121		%REC	1	5/21/2008 2:49:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 2:49:04 PM
Benzene	20	1.0		µg/L	1	5/21/2008 2:49:04 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 2:49:04 PM
Ethylbenzene	180	5.0		µg/L	5	5/21/2008 2:18:50 PM
Xylenes, Total	68	2.0		µg/L	1	5/21/2008 2:49:04 PM
Surr: 4-Bromofluorobenzene	109	68.9-122		%REC	1	5/21/2008 2:49:04 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.15	0.020		mg/L	1	5/23/2008 11:57:17 AM
Chromium	ND	0.0060		mg/L	1	5/23/2008 11:57:17 AM
Lead	0.022	0.0050		mg/L	1	5/23/2008 11:57:17 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-05

Client Sample ID: DW #1
Collection Date: 5/14/2008 11:45:00 AM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 3:52:42 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 3:52:42 PM
Surr: DNOP	110	58-140		%REC	1	5/16/2008 3:52:42 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/21/2008 3:49:22 PM
Surr: BFB	96.1	79.2-121		%REC	1	5/21/2008 3:49:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 3:49:22 PM
Benzene	ND	1.0		µg/L	1	5/21/2008 3:49:22 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 3:49:22 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 3:49:22 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 3:49:22 PM
Surr: 4-Bromofluorobenzene	91.0	68.9-122		%REC	1	5/21/2008 3:49:22 PM
EPA METHOD 7470: MERCURY						Analyst: SNV
Mercury	ND	0.0010		mg/L	5	5/23/2008 3:35:49 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.12	0.020		mg/L	1	5/23/2008 12:00:13 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:00:13 PM
Lead	ND	0.0050		mg/L	1	5/23/2008 12:00:13 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-06

Client Sample ID: TP-9
Collection Date: 5/14/2008 12:00:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 4:26:50 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 4:26:50 PM
Surr: DNOP	112	58-140		%REC	1	5/16/2008 4:26:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/21/2008 4:19:38 PM
Surr: BFB	101	79.2-121		%REC	1	5/21/2008 4:19:38 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 4:19:38 PM
Benzene	ND	1.0		µg/L	1	5/21/2008 4:19:38 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 4:19:38 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 4:19:38 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 4:19:38 PM
Surr: 4-Bromofluorobenzene	97.3	68.9-122		%REC	1	5/21/2008 4:19:38 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.11	0.020		mg/L	1	5/23/2008 12:04:00 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:04:00 PM
Lead	0.013	0.0050		mg/L	1	5/23/2008 12:04:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-07

Client Sample ID: TP-1
Collection Date: 5/14/2008 1:20:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.0	1.0		mg/L	1	5/16/2008 5:00:57 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 5:00:57 PM
Surr: DNOP	118	58-140		%REC	1	5/16/2008 5:00:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	54	2.5		mg/L	50	5/21/2008 6:50:14 PM
Surr: BFB	110	79.2-121		%REC	50	5/21/2008 6:50:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	5/22/2008 2:15:47 PM
Benzene	2500	50		µg/L	50	5/22/2008 2:15:47 PM
Toluene	ND	50		µg/L	50	5/22/2008 2:15:47 PM
Ethylbenzene	3000	50		µg/L	50	5/22/2008 2:15:47 PM
Xylenes, Total	13000	400		µg/L	200	5/21/2008 6:20:09 PM
Surr: 4-Bromofluorobenzene	105	68.9-122		%REC	50	5/22/2008 2:15:47 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.044	0.020		mg/L	1	5/23/2008 12:07:48 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:07:48 PM
Lead	0.045	0.0050		mg/L	1	5/23/2008 12:07:48 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-1FD

Lab Order: 0805219

Collection Date: 5/14/2008 1:25:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/15/2008

Lab ID: 0805219-08

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	2.1	1.0		mg/L	1	5/16/2008 6:09:39 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 6:09:39 PM
Surr: DNOP	122	58-140		%REC	1	5/16/2008 6:09:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	55	2.5		mg/L	50	5/21/2008 8:20:41 PM
Surr: BFB	109	79.2-121		%REC	50	5/21/2008 8:20:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	5/21/2008 8:20:41 PM
Benzene	2300	50		µg/L	50	5/21/2008 8:20:41 PM
Toluene	ND	50		µg/L	50	5/21/2008 8:20:41 PM
Ethylbenzene	2800	50		µg/L	50	5/21/2008 8:20:41 PM
Xylenes, Total	13000	400		µg/L	200	5/21/2008 7:50:26 PM
Surr: 4-Bromofluorobenzene	108	68.9-122		%REC	50	5/21/2008 8:20:41 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.041	0.020		mg/L	1	5/23/2008 12:24:39 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:24:39 PM
Lead	0.049	0.0050		mg/L	1	5/23/2008 12:24:39 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-09

Client Sample ID: TP-2
Collection Date: 5/14/2008 1:40:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	5/16/2008 6:44:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 6:44:00 PM
Surr: DNOP	117	58-140		%REC	1	5/16/2008 6:44:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	19	1.0		mg/L	20	5/21/2008 11:21:19 PM
Surr: BFB	102	79.2-121		%REC	20	5/21/2008 11:21:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	5/21/2008 11:21:19 PM
Benzene	1100	100		µg/L	100	5/21/2008 10:51:17 PM
Toluene	ND	20		µg/L	20	5/21/2008 11:21:19 PM
Ethylbenzene	2200	100		µg/L	100	5/21/2008 10:51:17 PM
Xylenes, Total	4000	200		µg/L	100	5/21/2008 10:51:17 PM
Surr: 4-Bromofluorobenzene	102	68.9-122		%REC	100	5/21/2008 10:51:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.13	0.020		mg/L	1	5/23/2008 12:31:00 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:31:00 PM
Lead	0.020	0.0050		mg/L	1	5/23/2008 12:31:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT:	San Juan Refining	Client Sample ID:	TP-5
Lab Order:	0805219	Collection Date:	5/14/2008 2:00:00 PM
Project:	River Terrace 2nd QTR 2008	Date Received:	5/15/2008
Lab ID:	0805219-10	Matrix:	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 7:18:21 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 7:18:21 PM
Surr: DNOP	114	58-140		%REC	1	5/16/2008 7:18:21 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	46	1.0		mg/L	20	5/22/2008 12:51:45 AM
Surr: BFB	105	79.2-121		%REC	20	5/22/2008 12:51:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	5/22/2008 12:51:45 AM
Benzene	48	20		µg/L	20	5/22/2008 12:51:45 AM
Toluene	ND	20		µg/L	20	5/22/2008 12:51:45 AM
Ethylbenzene	1100	20		µg/L	20	5/22/2008 12:51:45 AM
Xylenes, Total	13000	500		µg/L	250	5/22/2008 12:21:34 AM
Surr: 4-Bromofluorobenzene	106	68.9-122		%REC	20	5/22/2008 12:51:45 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.31	0.020		mg/L	1	5/23/2008 12:34:46 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:34:46 PM
Lead	0.039	0.0050		mg/L	1	5/23/2008 12:34:46 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
	ND Not Detected at the Reporting Limit	RL Reporting Limit
	S Spike recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
 Lab Order: 0805219
 Project: River Terrace 2nd QTR 2008
 Lab ID: 0805219-11

Client Sample ID: TP-12
 Collection Date: 5/14/2008 2:10:00 PM
 Date Received: 5/15/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 7:52:41 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 7:52:41 PM
Surr: DNOP	107	58-140		%REC	1	5/16/2008 7:52:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/21/2008 4:49:47 PM
Surr: BFB	100	79.2-121		%REC	1	5/21/2008 4:49:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 4:49:47 PM
Benzene	ND	1.0		µg/L	1	5/21/2008 4:49:47 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 4:49:47 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 4:49:47 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 4:49:47 PM
Surr: 4-Bromofluorobenzene	95.1	68.9-122		%REC	1	5/21/2008 4:49:47 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.043	0.020		mg/L	1	5/23/2008 12:37:31 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:37:31 PM
Lead	ND	0.0050		mg/L	1	5/23/2008 12:37:31 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-13

Lab Order: 0805219

Collection Date: 5/14/2008 2:30:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/15/2008

Lab ID: 0805219-12

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 8:27:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 8:27:04 PM
Surr: DNOP	113	58-140		%REC	1	5/16/2008 8:27:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/21/2008 9:21:08 PM
Surr: BFB	101	79.2-121		%REC	1	5/21/2008 9:21:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/21/2008 9:21:08 PM
Benzene	ND	1.0		µg/L	1	5/21/2008 9:21:08 PM
Toluene	ND	1.0		µg/L	1	5/21/2008 9:21:08 PM
Ethylbenzene	ND	1.0		µg/L	1	5/21/2008 9:21:08 PM
Xylenes, Total	ND	2.0		µg/L	1	5/21/2008 9:21:08 PM
Surr: 4-Bromofluorobenzene	96.3	68.9-122		%REC	1	5/21/2008 9:21:08 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.22	0.020		mg/L	1	5/23/2008 12:40:26 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:40:26 PM
Lead	0.012	0.0050		mg/L	1	5/23/2008 12:40:26 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-13

Client Sample ID: TP-11
Collection Date: 5/14/2008 2:50:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 9:01:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 9:01:25 PM
Surr: DNOP	113	58-140		%REC	1	5/16/2008 9:01:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/22/2008 1:52:00 AM
Surr: BFB	100	79.2-121		%REC	1	5/22/2008 1:52:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/22/2008 1:52:00 AM
Benzene	ND	1.0		µg/L	1	5/22/2008 1:52:00 AM
Toluene	ND	1.0		µg/L	1	5/22/2008 1:52:00 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2008 1:52:00 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2008 1:52:00 AM
Surr: 4-Bromofluorobenzene	96.8	68.9-122		%REC	1	5/22/2008 1:52:00 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.068	0.020		mg/L	1	5/23/2008 12:43:25 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:43:25 PM
Lead	ND	0.0050		mg/L	1	5/23/2008 12:43:25 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-14

Client Sample ID: FIELD BLANK
Collection Date: 5/14/2008 2:40:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 9:35:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 9:35:47 PM
Surr: DNOP	114	58-140		%REC	1	5/16/2008 9:35:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/22/2008 2:22:05 AM
Surr: BFB	97.2	79.2-121		%REC	1	5/22/2008 2:22:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/22/2008 2:22:05 AM
Benzene	ND	1.0		µg/L	1	5/22/2008 2:22:05 AM
Toluene	ND	1.0		µg/L	1	5/22/2008 2:22:05 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2008 2:22:05 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2008 2:22:05 AM
Surr: 4-Bromofluorobenzene	92.8	68.9-122		%REC	1	5/22/2008 2:22:05 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
 Lab Order: 0805219
 Project: River Terrace 2nd QTR 2008
 Lab ID: 0805219-15

Client Sample ID: TP-10
 Collection Date: 5/14/2008 3:00:00 PM
 Date Received: 5/15/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 10:10:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 10:10:12 PM
Surr: DNOP	110	58-140		%REC	1	5/16/2008 10:10:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/22/2008 2:52:05 AM
Surr: BFB	93.9	79.2-121		%REC	1	5/22/2008 2:52:05 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/22/2008 2:52:05 AM
Benzene	ND	1.0		µg/L	1	5/22/2008 2:52:05 AM
Toluene	ND	1.0		µg/L	1	5/22/2008 2:52:05 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2008 2:52:05 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2008 2:52:05 AM
Surr: 4-Bromofluorobenzene	89.0	68.9-122		%REC	1	5/22/2008 2:52:05 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.11	0.020		mg/L	1	5/23/2008 12:46:23 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:46:23 PM
Lead	ND	0.0050		mg/L	1	5/23/2008 12:46:23 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
 E Value above quantitation range
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805219
Project: River Terrace 2nd QTR 2008
Lab ID: 0805219-16

Client Sample ID: TP-3
Collection Date: 5/14/2008 3:15:00 PM
Date Received: 5/15/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/16/2008 10:44:33 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/16/2008 10:44:33 PM
Surr: DNOP	113	58-140		%REC	1	5/16/2008 10:44:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/22/2008 3:22:02 AM
Surr: BFB	97.6	79.2-121		%REC	1	5/22/2008 3:22:02 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	5/22/2008 3:22:02 AM
Benzene	ND	1.0		µg/L	1	5/22/2008 3:22:02 AM
Toluene	ND	1.0		µg/L	1	5/22/2008 3:22:02 AM
Ethylbenzene	ND	1.0		µg/L	1	5/22/2008 3:22:02 AM
Xylenes, Total	ND	2.0		µg/L	1	5/22/2008 3:22:02 AM
Surr: 4-Bromofluorobenzene	93.2	68.9-122		%REC	1	5/22/2008 3:22:02 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Barium	0.089	0.020		mg/L	1	5/23/2008 12:49:18 PM
Chromium	ND	0.0060		mg/L	1	5/23/2008 12:49:18 PM
Lead	ND	0.0050		mg/L	1	5/23/2008 12:49:18 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 2nd QTR 2008

Work Order: 0805219

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-15958		MBLK		Batch ID: 15958		Analysis Date: 5/16/2008 11:53:58 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Surr: DNOP	1.108	mg/L	0	111	58	140	
Sample ID: LCS-15958		LCS		Batch ID: 15958		Analysis Date: 5/16/2008 12:28:04 PM	
Diesel Range Organics (DRO)	5.874	mg/L	1.0	117	74	157	
Surr: DNOP	0.5700	mg/L	0	114	58	140	
Sample ID: LCSD-15958		LCSD		Batch ID: 15958		Analysis Date: 5/16/2008 1:02:08 PM	
Diesel Range Organics (DRO)	5.809	mg/L	1.0	116	74	157	1.11 23
Surr: DNOP	0.5842	mg/L	0	117	58	140	0 0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0805219-13A MSD		MSD			Batch ID: R28629		Analysis Date: 5/22/2008 4:24:52 AM	
Gasoline Range Organics (GRO)	0.4418	mg/L	0.050	88.4	80	115	1.62	8.39
Surr: BFB	20.96	mg/L	0	105	79.2	121	0	0
Sample ID: 5ML RB		MBLK			Batch ID: R28629		Analysis Date: 5/21/2008 8:42:30 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.05	mg/L	0	100	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R28629		Analysis Date: 5/22/2008 4:55:02 AM	
Gasoline Range Organics (GRO)	0.5146	mg/L	0.050	103	80	115		
Surr: BFB	21.21	mg/L	0	106	79.2	121		
Sample ID: 0805219-13A MS		MS			Batch ID: R28629		Analysis Date: 5/22/2008 3:52:02 AM	
Gasoline Range Organics (GRO)	0.4490	mg/L	0.050	89.8	80	115		
Surr: BFB	20.66	mg/L	0	103	79.2	121		

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 2nd QTR 2008

Work Order: 0805219

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 0805219-16A MSD

MSD

Batch ID: R28629

Analysis Date: 5/22/2008 6:55:22 AM

Methyl tert-butyl ether (MTBE)	22.34	µg/L	2.5	112	51.2	138	0.548	28	
Benzene	19.32	µg/L	1.0	96.6	85.9	113	0.0621	27	
Toluene	19.08	µg/L	1.0	95.4	86.4	113	0.866	19	
Ethylbenzene	18.94	µg/L	1.0	94.7	83.5	118	0.873	10	
Xylenes, Total	57.03	µg/L	2.0	95.1	83.4	122	1.46	13	
Surr: 4-Bromofluorobenzene	21.08	µg/L	0	105	68.9	122	0	0	

Sample ID: 5ML RB

MBLK

Batch ID: R28629

Analysis Date: 5/21/2008 8:42:30 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.28	µg/L	0	96.4	68.9	122			

Sample ID: 5ML RB

MBLK

Batch ID: R28636

Analysis Date: 5/22/2008 9:15:49 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	18.11	µg/L	0	90.6	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R28629

Analysis Date: 5/22/2008 7:25:24 AM

Methyl tert-butyl ether (MTBE)	21.70	µg/L	2.5	108	51.2	138			
Benzene	19.62	µg/L	1.0	98.1	85.9	113			
Toluene	19.65	µg/L	1.0	98.2	86.4	113			
Ethylbenzene	19.70	µg/L	1.0	98.5	83.5	118			
Xylenes, Total	59.25	µg/L	2.0	98.7	83.4	122			
Surr: 4-Bromofluorobenzene	20.29	µg/L	0	101	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R28636

Analysis Date: 5/23/2008 5:52:02 AM

Methyl tert-butyl ether (MTBE)	24.41	µg/L	2.5	122	51.2	138			
Benzene	19.73	µg/L	1.0	98.7	85.9	113			
Toluene	19.73	µg/L	1.0	98.6	86.4	113			
Ethylbenzene	19.95	µg/L	1.0	99.4	83.5	118			
Xylenes, Total	60.33	µg/L	2.0	101	83.4	122			
Surr: 4-Bromofluorobenzene	21.43	µg/L	0	107	68.9	122			

Sample ID: 0805219-16A MS

MS

Batch ID: R28629

Analysis Date: 5/22/2008 6:25:15 AM

Methyl tert-butyl ether (MTBE)	22.22	µg/L	2.5	111	51.2	138			
Benzene	19.31	µg/L	1.0	96.5	85.9	113			
Toluene	19.25	µg/L	1.0	96.2	86.4	113			
Ethylbenzene	19.11	µg/L	1.0	95.5	83.5	118			
Xylenes, Total	57.87	µg/L	2.0	96.5	83.4	122			
Surr: 4-Bromofluorobenzene	17.93	µg/L	0	89.7	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 2nd QTR 2008

Work Order: 0805219

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7470: Mercury									
Sample ID: 0805219-05BMSD		MSD			Batch ID: 16019	Analysis Date: 5/23/2008 3:39:26 PM			
Mercury	0.005735	mg/L	0.0010	111	75	125	7.21	20	
Sample ID: MB-16019		MBLK			Batch ID: 16019	Analysis Date: 5/23/2008 2:47:12 PM			
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-16019		LCS			Batch ID: 16019	Analysis Date: 5/23/2008 2:48:56 PM			
Mercury	0.005009	mg/L	0.00020	100	80	120			
Sample ID: 0805219-05BMS		MS			Batch ID: 16019	Analysis Date: 5/23/2008 3:37:38 PM			
Mercury	0.005336	mg/L	0.0010	104	75	125			

Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0805219-16BMSD		MSD			Batch ID: 16013	Analysis Date: 5/23/2008 12:55:08 PM			
Barium	0.5591	mg/L	0.010	94.0	75	125	1.40	20	
Chromium	0.4829	mg/L	0.0060	96.6	75	125	3.32	20	
Lead	0.4644	mg/L	0.0050	92.9	75	125	2.26	20	
Sample ID: MB-16013		MBLK			Batch ID: 16013	Analysis Date: 5/23/2008 11:34:12 AM			
Barium	ND	mg/L	0.010						
Chromium	ND	mg/L	0.0060						
Lead	ND	mg/L	0.0050						
Sample ID: LCS-16013		LCS			Batch ID: 16013	Analysis Date: 5/23/2008 11:37:05 AM			
Barium	0.4867	mg/L	0.010	97.3	80	120			
Chromium	0.5038	mg/L	0.0060	101	80	120			
Lead	0.4858	mg/L	0.0050	97.2	80	120			
Sample ID: 0805219-16BMS		MS			Batch ID: 16013	Analysis Date: 5/23/2008 12:52:12 PM			
Barium	0.5670	mg/L	0.010	95.6	75	125			
Chromium	0.4992	mg/L	0.0060	99.8	75	125			
Lead	0.4750	mg/L	0.0050	95.0	75	125			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

5/15/2008

Work Order Number 0805219

Received by: TLS

Checklist completed by:

Jamya Shomin
Signature

5/15/08
Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

4°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Correct time on sample TP-6 is 11:10 as per CH. # 5/15

Corrective Action

Chain-of-Custody Record

Client: Western Refining (Bldg)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Project Manager:

Sampler: Cindy + Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 1

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
5-14-08	1030A	MW#49	4-VOA	HCl	0805219
			500 ml	HNO ₃	1
	1035A	TP-8	4-VOA	HCl	2
			500 ml	HNO ₃	2
	1050A	TP-7	4-VOA	HCl	3
			500 ml	HNO ₃	3
	1110A	TP-6	4-VOA	HCl	4
			500 ml	HNO ₃	4
	1145A	DW#1	4-VOA	HCl	5
			500 ml	HNO ₃	5
	12N	TP-9	4-VOA	HCl	6
			500 ml	HNO ₃	6

Date: 5-14-08 Time: 3:20

Date: _____ Time: _____

Relinquished by: [Signature]

Relinquished by: [Signature]

Received by: 5/15/08

Received by: 903

Remarks:

Turn-Around Time: ☒ Standard ☐ Rush

Project Name:

River Terrace 2nd QTR 2008

Project #:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + PAHs (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Total Pb, Ba, Cr, Hg	Air Bubbles (Y or N)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Chain-of-Custody Record

Client: Western Refining (Blm fld)

Address: #50 CR 4990

Blamfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

River Terrace 2nd QTR 2008

Project #:

Project Manager:

Sampler: Cindy + Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 4

Date Time Sample Request ID

5-14-08 120pm TP-1

125pm TP-1 FD

140pm TP-2

2pm TP-5

20pm TP-12

230pm TP-13

Date: 5-14-08

Time: 330pm

Relinquished by:

Cindy Hurtado

Relinquished by:

Cindy Hurtado

Received by:

Janey Stramin

Received by:

Janey Stramin

Remarks:

5/15/08 953

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Analysis Request	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Total Pb, Ba, Cd	Air Bubbles (Y or N)
BTEX + MTBE + THMs (8021)	X									
BTEX + MTBE + TPH (Gas only)	X									
TPH Method 8015B (Gas/Diesel)	X									
TPH Method 418.1										
EDB (Method 504.1)										
EDC (Method 8260)										
8310 (PNA or PAH)										
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)										
8081 Pesticides / 8082 PCB's										
8260B (VOA)										
8270 (Semi-VOA)										
Total Pb, Ba, Cd										
Air Bubbles (Y or N)										

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

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4901 Hawkins NE, Suite D

4901 Hawkins NE, Suite D

COVER LETTER

Thursday, August 07, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 3rd QTR 2008

Order No.: 0807203

Dear Cindy Hurtado:

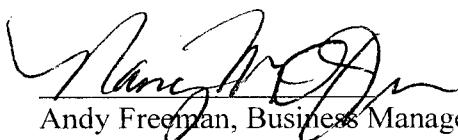
Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.**Project:** River Terrace 3rd QTR 2008**Lab Order:** 0807203**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807203-01A	TP-#2	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29463	EPA Method 8021B: Volatiles	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	R29463	EPA Method 8021B: Volatiles	7/15/2008 10:45:00 AM
0807203-01A	TP-#2	16510	EPA Method 8015B: Diesel Range	7/15/2008 10:45:00 AM
0807203-01B	TP-#2	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 10:45:00 AM
0807203-02A	TP-#1	16510	EPA Method 8015B: Diesel Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:00:00 AM
0807203-02A	TP-#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:00:00 AM
0807203-02B	TP-#1	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 11:00:00 AM
0807203-03A	TP-#6	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	16510	EPA Method 8015B: Diesel Range	7/15/2008 11:20:00 AM
0807203-03A	TP-#6	R29463	EPA Method 8021B: Volatiles	7/15/2008 11:20:00 AM
0807203-03B	TP-#6	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 11:20:00 AM
0807203-04A	TP-#8	16510	EPA Method 8015B: Diesel Range	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29463	EPA Method 8021B: Volatiles	7/15/2008 12:45:00 PM
0807203-04A	TP-#8	R29486	EPA Method 8021B: Volatiles	7/15/2008 12:45:00 PM
0807203-04B	TP-#8	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 12:45:00 PM
0807203-05A	TP-#7	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29388	EPA Method 8021B: Volatiles	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:00:00 PM
0807203-05A	TP-#7	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:00:00 PM
0807203-05B	TP-#7	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:00:00 PM
0807203-06A	TP-#9	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:15:00 PM
0807203-06A	TP-#9	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:15:00 PM
0807203-06A	TP-#9	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:15:00 PM
0807203-06B	TP-#9	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:15:00 PM
0807203-07A	TP-#5	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:45:00 PM
0807203-07A	TP-#5	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:45:00 PM
0807203-07B	TP-#5	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 1:45:00 PM

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 3rd QTR 2008
Lab Order: 0807203

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807203-08A	TP-#5FD	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29463	EPA Method 8021B: Volatiles	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	16510	EPA Method 8015B: Diesel Range	7/15/2008 1:50:00 PM
0807203-08A	TP-#5FD	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 1:50:00 PM
0807203-09A	MW-#49	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	R29486	EPA Method 8021B: Volatiles	7/15/2008 2:15:00 PM
0807203-09A	MW-#49	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:15:00 PM
0807203-09B	MW-#49	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 2:15:00 PM
0807203-10A	DW#1	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:45:00 PM
0807203-10A	DW#1	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:45:00 PM
0807203-10A	DW#1	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16532	EPA Method 7470: Mercury	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16532	EPA Method 7470: Mercury	7/15/2008 2:45:00 PM
0807203-10B	DW#1	16649	EPA 6010B: Total Recoverable Metals	7/15/2008 2:45:00 PM
0807203-11A	Field Blank	R29463	EPA Method 8021B: Volatiles	7/15/2008 2:50:00 PM
0807203-11A	Field Blank	16510	EPA Method 8015B: Diesel Range	7/15/2008 2:50:00 PM
0807203-11A	Field Blank	R29388	EPA Method 8015B: Gasoline Range	7/15/2008 2:50:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Lab Order: 0807203

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-01

Client Sample ID: TP-#2
Collection Date: 7/15/2008 10:45:00 AM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	7/17/2008 3:34:17 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 3:34:17 PM
Surr: DNOP	122	58-140		%REC	1	7/17/2008 3:34:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	19	1.0		mg/L	20	7/17/2008 10:05:28 PM
Surr: BFB	135	79.2-121	S	%REC	20	7/17/2008 10:05:28 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	7/24/2008 2:38:52 PM
Benzene	800	20		µg/L	20	7/24/2008 2:38:52 PM
Toluene	ND	20		µg/L	20	7/24/2008 2:38:52 PM
Ethylbenzene	3000	100		µg/L	100	7/24/2008 2:05:55 PM
Xylenes, Total	3400	40		µg/L	20	7/24/2008 2:38:52 PM
Surr: 4-Bromofluorobenzene	114	68.9-122		%REC	20	7/24/2008 2:38:52 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.035	0.0050		mg/L	1	8/1/2008 2:45:59 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-02

Client Sample ID: TP-#1
Collection Date: 7/15/2008 11:00:00 AM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.6	1.0		mg/L	1	7/17/2008 4:09:15 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 4:09:15 PM
Surr: DNOP	110	58-140		%REC	1	7/17/2008 4:09:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	59	2.5		mg/L	50	7/18/2008 2:05:38 AM
Surr: BFB	118	79.2-121		%REC	50	7/18/2008 2:05:38 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	120		µg/L	50	7/24/2008 4:09:11 PM
Benzene	1800	50		µg/L	50	7/24/2008 4:09:11 PM
Toluene	ND	50		µg/L	50	7/24/2008 4:09:11 PM
Ethylbenzene	3300	50		µg/L	50	7/24/2008 4:09:11 PM
Xylenes, Total	17000	500		µg/L	250	7/24/2008 3:39:09 PM
Surr: 4-Bromofluorobenzene	107	68.9-122		%REC	50	7/24/2008 4:09:11 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.085	0.0050		mg/L	1	8/1/2008 2:49:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: TP-#6

Lab Order: 0807203

Collection Date: 7/15/2008 11:20:00 AM

Project: River Terrace 3rd QTR 2008

Date Received: 7/16/2008

Lab ID: 0807203-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 4:44:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 4:44:12 PM
Surr: DNOP	121	58-140		%REC	1	7/17/2008 4:44:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	8.6	0.25		mg/L	5	7/18/2008 3:08:10 AM
Surr: BFB	149	79.2-121	S	%REC	5	7/18/2008 3:08:10 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	12		µg/L	5	7/24/2008 5:44:36 PM
Benzene	ND	5.0		µg/L	5	7/24/2008 5:44:36 PM
Toluene	ND	5.0		µg/L	5	7/24/2008 5:44:36 PM
Ethylbenzene	800	50		µg/L	50	7/24/2008 5:12:00 PM
Xylenes, Total	2700	100		µg/L	50	7/24/2008 5:12:00 PM
Surr: 4-Bromofluorobenzene	112	68.9-122		%REC	50	7/24/2008 5:12:00 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.051	0.0050		mg/L	1	8/1/2008 2:53:37 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: TP-#8

Lab Order: 0807203

Collection Date: 7/15/2008 12:45:00 PM

Project: River Terrace 3rd QTR 2008

Date Received: 7/16/2008

Lab ID: 0807203-04

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	7/17/2008 5:18:54 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 5:18:54 PM
Surr: DNOP	119	58-140		%REC	1	7/17/2008 5:18:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	14	0.50		mg/L	10	7/18/2008 4:41:00 AM
Surr: BFB	147	79.2-121	S	%REC	10	7/18/2008 4:41:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	7/24/2008 6:47:28 PM
Benzene	ND	10		µg/L	10	7/24/2008 6:47:28 PM
Toluene	ND	10		µg/L	10	7/24/2008 6:47:28 PM
Ethylbenzene	340	10		µg/L	10	7/24/2008 6:47:28 PM
Xylenes, Total	2400	100		µg/L	50	7/25/2008 11:13:35 AM
Surr: 4-Bromofluorobenzene	108	68.9-122		%REC	50	7/25/2008 11:13:35 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.066	0.0050		mg/L	1	8/1/2008 2:56:25 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-05

Client Sample ID: TP-#7
Collection Date: 7/15/2008 1:00:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 5:53:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 5:53:53 PM
Surr: DNOP	125	58-140		%REC	1	7/17/2008 5:53:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/18/2008 5:11:06 AM
Surr: BFB	88.9	79.2-121		%REC	1	7/18/2008 5:11:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/24/2008 7:47:40 PM
Benzene	ND	1.0		µg/L	1	7/24/2008 7:47:40 PM
Toluene	ND	1.0		µg/L	1	7/24/2008 7:47:40 PM
Ethylbenzene	ND	1.0		µg/L	1	7/24/2008 7:47:40 PM
Xylenes, Total	ND	2.0		µg/L	1	7/24/2008 7:47:40 PM
Surr: 4-Bromofluorobenzene	97.6	68.9-122		%REC	1	7/24/2008 7:47:40 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	ND	0.0050		mg/L	1	8/1/2008 3:00:11 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-06

Client Sample ID: TP-#9
Collection Date: 7/15/2008 1:15:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 6:28:37 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 6:28:37 PM
Surr: DNOP	116	58-140		%REC	1	7/17/2008 6:28:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/18/2008 5:41:06 AM
Surr: BFB	89.0	79.2-121		%REC	1	7/18/2008 5:41:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/24/2008 9:47:49 PM
Benzene	ND	1.0		µg/L	1	7/24/2008 9:47:49 PM
Toluene	ND	1.0		µg/L	1	7/24/2008 9:47:49 PM
Ethylbenzene	ND	1.0		µg/L	1	7/24/2008 9:47:49 PM
Xylenes, Total	ND	2.0		µg/L	1	7/24/2008 9:47:49 PM
Surr: 4-Bromofluorobenzene	87.2	68.9-122		%REC	1	7/24/2008 9:47:49 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.0076	0.0050		mg/L	1	8/1/2008 3:02:55 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-07

Client Sample ID: TP-#5
Collection Date: 7/15/2008 1:45:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	7/17/2008 7:03:02 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 7:03:02 PM
Surr: DNOP	123	58-140		%REC	1	7/17/2008 7:03:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	50	1.0		mg/L	20	7/18/2008 6:41:14 AM
Surr: BFB	133	79.2-121	S	%REC	20	7/18/2008 6:41:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	7/24/2008 10:48:00 PM
Benzene	ND	20		µg/L	20	7/24/2008 10:48:00 PM
Toluene	ND	20		µg/L	20	7/24/2008 10:48:00 PM
Ethylbenzene	1900	20		µg/L	20	7/24/2008 10:48:00 PM
Xylenes, Total	18000	500		µg/L	250	7/24/2008 10:17:52 PM
Surr: 4-Bromofluorobenzene	121	68.9-122		%REC	20	7/24/2008 10:48:00 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	0.043	0.0050		mg/L	1	8/1/2008 3:06:39 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-08

Client Sample ID: TP-#5FD
Collection Date: 7/15/2008 1:50:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	7/17/2008 8:11:45 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 8:11:45 PM
Surr: DNOP	122	58-140		%REC	1	7/17/2008 8:11:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	53	1.0		mg/L	20	7/18/2008 11:41:14 AM
Surr: BFB	131	79.2-121	S	%REC	20	7/18/2008 11:41:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	50		µg/L	20	7/25/2008 12:18:30 AM
Benzene	ND	20		µg/L	20	7/25/2008 12:18:30 AM
Toluene	ND	20		µg/L	20	7/25/2008 12:18:30 AM
Ethylbenzene	2000	20		µg/L	20	7/25/2008 12:18:30 AM
Xylenes, Total	19000	500		µg/L	250	7/24/2008 11:48:20 PM
Surr: 4-Bromofluorobenzene	116	68.9-122		%REC	20	7/25/2008 12:18:30 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-09

Client Sample ID: MW-#49
Collection Date: 7/15/2008 2:15:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 8:46:10 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 8:46:10 PM
Surr: DNOP	112	58-140		%REC	1	7/17/2008 8:46:10 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	0.24	0.050		mg/L	1	7/18/2008 12:41:11 PM
Surr: BFB	95.4	79.2-121		%REC	1	7/18/2008 12:41:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/25/2008 12:13:46 PM
Benzene	ND	1.0		µg/L	1	7/25/2008 12:13:46 PM
Toluene	ND	1.0		µg/L	1	7/25/2008 12:13:46 PM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2008 12:13:46 PM
Xylenes, Total	ND	2.0		µg/L	1	7/25/2008 12:13:46 PM
Surr: 4-Bromofluorobenzene	97.6	68.9-122		%REC	1	7/25/2008 12:13:46 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	ND	0.0050		mg/L	1	8/1/2008 3:11:02 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-10

Client Sample ID: DW#1
Collection Date: 7/15/2008 2:45:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 9:20:14 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 9:20:14 PM
Surr: DNOP	127	58-140		%REC	1	7/17/2008 9:20:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/18/2008 1:11:23 PM
Surr: BFB	95.8	79.2-121		%REC	1	7/18/2008 1:11:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/25/2008 1:48:31 AM
Benzene	ND	1.0		µg/L	1	7/25/2008 1:48:31 AM
Toluene	ND	1.0		µg/L	1	7/25/2008 1:48:31 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2008 1:48:31 AM
Xylenes, Total	ND	2.0		µg/L	1	7/25/2008 1:48:31 AM
Surr: 4-Bromofluorobenzene	97.2	68.9-122		%REC	1	7/25/2008 1:48:31 AM
EPA METHOD 7470: MERCURY						Analyst: SNV
Mercury	ND	0.0010		mg/L	5	7/21/2008 3:37:04 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: TES
Lead	ND	0.0050		mg/L	1	8/1/2008 3:23:07 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807203
Project: River Terrace 3rd QTR 2008
Lab ID: 0807203-11

Client Sample ID: Field Blank
Collection Date: 7/15/2008 2:50:00 PM
Date Received: 7/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/17/2008 9:54:21 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/17/2008 9:54:21 PM
Surr: DNOP	130	58-140		%REC	1	7/17/2008 9:54:21 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/18/2008 1:41:42 PM
Surr: BFB	86.7	79.2-121		%REC	1	7/18/2008 1:41:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/25/2008 2:18:38 AM
Benzene	ND	1.0		µg/L	1	7/25/2008 2:18:38 AM
Toluene	ND	1.0		µg/L	1	7/25/2008 2:18:38 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2008 2:18:38 AM
Xylenes, Total	ND	2.0		µg/L	1	7/25/2008 2:18:38 AM
Surr: 4-Bromofluorobenzene	84.5	68.9-122		%REC	1	7/25/2008 2:18:38 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 3rd QTR 2008

Work Order: 0807203

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-16510		MBLK		Batch ID: 16510		Analysis Date: 7/17/2008 1:50:17 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Surr: DNOP	1.149	mg/L	0	115	58	140	
Sample ID: LCS-16510		LCS		Batch ID: 16510		Analysis Date: 7/17/2008 2:24:53 PM	
Diesel Range Organics (DRO)	5.062	mg/L	1.0	101	74	157	
Surr: DNOP	0.5529	mg/L	0	111	58	140	
Sample ID: LCSD-16510		LCSD		Batch ID: 16510		Analysis Date: 7/17/2008 2:59:34 PM	
Diesel Range Organics (DRO)	4.790	mg/L	1.0	95.8	74	157	5.52 23
Surr: DNOP	0.5344	mg/L	0	107	58	140	0 0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807203-06A MSD		MSD			Batch ID: R29388		Analysis Date: 7/18/2008 9:41:10 AM	
Gasoline Range Organics (GRO)	0.4612	mg/L	0.050	86.4	80	115	1.44	8.39
Surr: BFB	19.61	mg/L	0	98.1	79.2	121	0	0
Sample ID: 5ML RB		MBLK			Batch ID: R29388		Analysis Date: 7/17/2008 8:40:27 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	18.53	mg/L	0	92.6	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R29388		Analysis Date: 7/17/2008 11:35:31 PM	
Gasoline Range Organics (GRO)	0.4662	mg/L	0.050	93.2	80	115		
Surr: BFB	20.28	mg/L	0	101	79.2	121		
Sample ID: 0807203-06A MS		MS			Batch ID: R29388		Analysis Date: 7/18/2008 9:11:06 AM	
Gasoline Range Organics (GRO)	0.4546	mg/L	0.050	85.0	80	115		
Surr: BFB	19.23	mg/L	0	96.2	79.2	121		

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.

Project: River Terrace 3rd QTR 2008

Work Order: 0807203

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 0807203-10A MSD

MSD

Batch ID: R29463

Analysis Date: 7/25/2008 5:54:21 AM

Methyl tert-butyl ether (MTBE)	19.34	µg/L	2.5	96.7	51.2	138	2.50	28	
Benzene	20.93	µg/L	1.0	105	85.9	113	0.239	27	
Toluene	21.10	µg/L	1.0	106	86.4	113	0.370	19	
Ethylbenzene	21.34	µg/L	1.0	106	83.5	118	0.536	10	
Xylenes, Total	63.77	µg/L	2.0	104	83.4	122	0.899	13	
Surr: 4-Bromofluorobenzene	20.83	µg/L	0	104	68.9	122	0	0	

Sample ID: 5ML RB

MBLK

Batch ID: R29388

Analysis Date: 7/17/2008 8:40:27 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.36	µg/L	0	96.8	68.9	122			

Sample ID: 5ML RB

MBLK

Batch ID: R29463

Analysis Date: 7/24/2008 8:29:26 AM

Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	20.67	µg/L	0	103	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R29388

Analysis Date: 7/18/2008 12:05:29 AM

Methyl tert-butyl ether (MTBE)	14.81	µg/L	2.5	74.0	51.2	138			
Benzene	19.36	µg/L	1.0	96.8	85.9	113			
Toluene	20.09	µg/L	1.0	100	86.4	113			
Ethylbenzene	20.02	µg/L	1.0	100	83.5	118			
Xylenes, Total	60.00	µg/L	2.0	100	83.4	122			
Surr: 4-Bromofluorobenzene	19.43	µg/L	0	97.2	68.9	122			

Sample ID: 0807203-10A MS

MS

Batch ID: R29463

Analysis Date: 7/25/2008 5:24:18 AM

Methyl tert-butyl ether (MTBE)	19.83	µg/L	2.5	99.1	51.2	138			
Benzene	20.88	µg/L	1.0	104	85.9	113			
Toluene	21.03	µg/L	1.0	105	86.4	113			
Ethylbenzene	21.23	µg/L	1.0	106	83.5	118			
Xylenes, Total	64.35	µg/L	2.0	105	83.4	122			
Surr: 4-Bromofluorobenzene	18.37	µg/L	0	91.9	68.9	122			

Qualifiers:

L Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: River Terrace 3rd QTR 2008

Work Order: 0807203

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 7470: Mercury

Sample ID: 0807203-10BMSD		MSD							
					Batch ID:	16532	Analysis Date:	7/21/2008 3:40:41 PM	
Mercury	0.005109	mg/L	0.0010	102	75	125	4.38	20	
Sample ID: MB-16532		MBLK			Batch ID:	16532	Analysis Date:	7/21/2008 3:22:33 PM	
Mercury	ND	mg/L	0.00020						
Sample ID: LCS-16532		LCS			Batch ID:	16532	Analysis Date:	7/21/2008 3:24:24 PM	
Mercury	0.004761	mg/L	0.00020	95.2	80	120			
Sample ID: 0807203-10BMS		MS			Batch ID:	16532	Analysis Date:	7/21/2008 3:38:53 PM	
Mercury	0.004890	mg/L	0.0010	97.8	75	125			

Method: EPA 6010B: Total Recoverable Metals

Sample ID: 0807203-03BMSD		MSD							
					Batch ID:	16649	Analysis Date:	8/1/2008 3:29:40 PM	
Lead	0.5208	mg/L	0.0050	93.9	75	125	2.92	20	
Sample ID: MB-16649		MBLK			Batch ID:	16649	Analysis Date:	8/1/2008 2:40:13 PM	
Lead	ND	mg/L	0.0050						
Sample ID: LCS-16649		LCS			Batch ID:	16649	Analysis Date:	8/1/2008 2:43:12 PM	
Lead	0.4883	mg/L	0.0050	97.7	80	120			
Sample ID: 0807203-03BMS		MS			Batch ID:	16649	Analysis Date:	8/1/2008 3:26:54 PM	
Lead	0.5363	mg/L	0.0050	97.0	75	125			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

7/16/2008

Work Order Number 0807203

Received by: TLS

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

AT

7/16/08
Date

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

5°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: Western Refining (Bimble)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

River Terrace 3rd QTR 2008

Project #:

Project Manager:

Sampler: Bob & Cathy

On Ice: ☒ Yes ☐ No

Sample Temperature: 5

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
7-15-08	1045A	TP-#2	4-10A	HCL	0807203
			1-250ml	HNO3	1
	4AM	TP-#1	4-10A	HCL	2
			1-250ml	HNO3	2
	120A	TP-#6	4-10A	HCL	3
			1-250ml	HNO3	3
	1245A	TP-#8	4-10A	HCL	4
			1-250ml	HNO3	4
	1pm	TP-#7	4-10A	HCL	5
			1-250ml	HNO3	5
	115A	TP-#9	4-10A	HCL	6
			1-250ml	HNO3	6

Date: 7-15-08

Time: 305A

Relinquished by:

Cindy Hurtado

Received by:

Priscilla

Received by:

7/16/08 940

Remarks:

page 1 of 2

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TPB (8021)	X	TPH Method 8015B (Gas/Diesel)	X	TPH (Method 418.1)		EDB (Method 504.1)		EDC (Method 8260)		8310 (PNA or PAH)		Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)		8081 Pesticides / 8082 PCB's		8260B (VOA)		8270 (Semi-VOA)		TOTAL pb		Air Bubbles (Y or N)	
BTEX + MTBE	X	BTEX + MTBE + TPH (Gas only)	X	X		X		X		X		X		X		X		X		X			

Chain-of-Custody Record

Client: Western Refining (Bmt)

Address: #50 CR 4990

Bloomfield NM 87413

Phone #: 505-632-4141

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

River Terrace 3rd QTR 2008

Project #:

Project Manager:

Sampler: Bob/Cindy

On Ice: ☒ Yes ☐ No

Sample Temperature: 3

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F, Cl, NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCBs	8260B (VOA)	8270 (Semi-VOA)	Total Pb	Total Pb & Hg	Air Bubbles (Y or N)
7-15-08	145p	TP-#5	4-VOA	HCL	7	X		X									X		
		/	1-250ml	HNO3	7	X		X											
	150pm	TP-#5 FD	4-VOA	HCL	8	X		X											
	215pm	MUJ#49	4-VOA	HCL	9	X		X											
	/	/	1-250ml	HNO3	9	X		X											
	245p	DW#1	4-VOA	HCL	10	X		X									X		
	/	/	1-250ml	HNO3	10	X		X											
	250pm	Field Blank	4-VOA	HCL	11	X		X											

Date: 7/15/08 Time: 305pm

Relinquished by: Cindy Hustedo

Date: 7/15/08 Time: 305pm

Relinquished by: Cindy Hustedo

Received by: Imeyo SL

7/16/08 940

Received by: Imeyo SL

Remarks:

page 2 of 2

COVER LETTER

Thursday, August 07, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 3rd QTR 2008

Order No.: 0807232

Dear Cindy Hurtado:

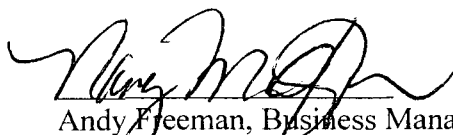
Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 7/17/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 3rd QTR 2008
Lab Order: 0807232

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807232-01A	TP-13	R29434	EPA Method 8021B: Volatiles	7/16/2008 8:45:00 AM
0807232-01A	TP-13	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 8:45:00 AM
0807232-01A	TP-13	16516	EPA Method 8015B: Diesel Range	7/16/2008 8:45:00 AM
0807232-01B	TP-13	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 8:45:00 AM
0807232-02A	TP-12	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:05:00 AM
0807232-02A	TP-12	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:05:00 AM
0807232-02A	TP-12	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:05:00 AM
0807232-02B	TP-12	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:05:00 AM
0807232-03A	TP-11	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:20:00 AM
0807232-03A	TP-11	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:20:00 AM
0807232-03A	TP-11	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:20:00 AM
0807232-03B	TP-11	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:20:00 AM
0807232-04A	TP-10	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:30:00 AM
0807232-04A	TP-10	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:30:00 AM
0807232-04A	TP-10	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:30:00 AM
0807232-04B	TP-10	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:30:00 AM
0807232-05A	TP-3	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:40:00 AM
0807232-05A	TP-3	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:40:00 AM
0807232-05A	TP-3	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:40:00 AM
0807232-05B	TP-3	16603	EPA 6010B: Total Recoverable Metals	7/16/2008 9:40:00 AM
0807232-06A	Field Blank	R29434	EPA Method 8015B: Gasoline Range	7/16/2008 9:45:00 AM
0807232-06A	Field Blank	16516	EPA Method 8015B: Diesel Range	7/16/2008 9:45:00 AM
0807232-06A	Field Blank	R29434	EPA Method 8021B: Volatiles	7/16/2008 9:45:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-01

Client Sample ID: TP-13
Collection Date: 7/16/2008 8:45:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 12:39:27 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 12:39:27 PM
Surr: DNOP	118	58-140		%REC	1	7/18/2008 12:39:27 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2008 11:14:35 PM
Surr: BFB	81.3	79.2-121		%REC	1	7/22/2008 11:14:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2008 11:14:35 PM
Benzene	ND	1.0		µg/L	1	7/22/2008 11:14:35 PM
Toluene	ND	1.0		µg/L	1	7/22/2008 11:14:35 PM
Ethylbenzene	ND	1.0		µg/L	1	7/22/2008 11:14:35 PM
Xylenes, Total	ND	2.0		µg/L	1	7/22/2008 11:14:35 PM
Surr: 4-Bromofluorobenzene	84.4	68.9-122		%REC	1	7/22/2008 11:14:35 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	7/30/2008 2:54:07 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-02

Client Sample ID: TP-12
Collection Date: 7/16/2008 9:05:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 1:13:50 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 1:13:50 PM
Surr: DNOP	119	58-140		%REC	1	7/18/2008 1:13:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/22/2008 11:44:34 PM
Surr: BFB	94.3	79.2-121		%REC	1	7/22/2008 11:44:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/22/2008 11:44:34 PM
Benzene	ND	1.0		µg/L	1	7/22/2008 11:44:34 PM
Toluene	ND	1.0		µg/L	1	7/22/2008 11:44:34 PM
Ethylbenzene	ND	1.0		µg/L	1	7/22/2008 11:44:34 PM
Xylenes, Total	ND	2.0		µg/L	1	7/22/2008 11:44:34 PM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	7/22/2008 11:44:34 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.0050	0.0050		mg/L	1	7/30/2008 2:56:55 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-03

Client Sample ID: TP-11
Collection Date: 7/16/2008 9:20:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 1:48:17 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 1:48:17 PM
Surr: DNOP	120	58-140		%REC	1	7/18/2008 1:48:17 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/23/2008 12:14:42 AM
Surr: BFB	89.6	79.2-121		%REC	1	7/23/2008 12:14:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/23/2008 12:14:42 AM
Benzene	ND	1.0		µg/L	1	7/23/2008 12:14:42 AM
Toluene	ND	1.0		µg/L	1	7/23/2008 12:14:42 AM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2008 12:14:42 AM
Xylenes, Total	ND	2.0		µg/L	1	7/23/2008 12:14:42 AM
Surr: 4-Bromofluorobenzene	96.1	68.9-122		%REC	1	7/23/2008 12:14:42 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.0079	0.0050		mg/L	1	7/30/2008 2:59:41 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-04

Client Sample ID: TP-10
Collection Date: 7/16/2008 9:30:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 2:22:44 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 2:22:44 PM
Surr: DNOP	118	58-140		%REC	1	7/18/2008 2:22:44 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/23/2008 12:44:46 AM
Surr: BFB	91.1	79.2-121		%REC	1	7/23/2008 12:44:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/23/2008 12:44:46 AM
Benzene	ND	1.0		µg/L	1	7/23/2008 12:44:46 AM
Toluene	ND	1.0		µg/L	1	7/23/2008 12:44:46 AM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2008 12:44:46 AM
Xylenes, Total	ND	2.0		µg/L	1	7/23/2008 12:44:46 AM
Surr: 4-Bromofluorobenzene	98.4	68.9-122		%REC	1	7/23/2008 12:44:46 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	ND	0.0050		mg/L	1	7/30/2008 3:02:26 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-05

Client Sample ID: TP-3
Collection Date: 7/16/2008 9:40:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 2:57:22 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 2:57:22 PM
Surr: DNOP	119	58-140		%REC	1	7/18/2008 2:57:22 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/23/2008 1:14:49 AM
Surr: BFB	89.0	79.2-121		%REC	1	7/23/2008 1:14:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/23/2008 1:14:49 AM
Benzene	ND	1.0		µg/L	1	7/23/2008 1:14:49 AM
Toluene	ND	1.0		µg/L	1	7/23/2008 1:14:49 AM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2008 1:14:49 AM
Xylenes, Total	ND	2.0		µg/L	1	7/23/2008 1:14:49 AM
Surr: 4-Bromofluorobenzene	95.3	68.9-122		%REC	1	7/23/2008 1:14:49 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: NMO
Lead	0.0052	0.0050		mg/L	1	7/30/2008 3:05:05 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807232
Project: River Terrace 3rd QTR 2008
Lab ID: 0807232-06

Client Sample ID: Field Blank
Collection Date: 7/16/2008 9:45:00 AM
Date Received: 7/17/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/18/2008 3:32:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/18/2008 3:32:04 PM
Surr: DNOP	116	58-140		%REC	1	7/18/2008 3:32:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/23/2008 1:46:14 AM
Surr: BFB	89.8	79.2-121		%REC	1	7/23/2008 1:46:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	7/23/2008 1:46:14 AM
Benzene	ND	1.0		µg/L	1	7/23/2008 1:46:14 AM
Toluene	ND	1.0		µg/L	1	7/23/2008 1:46:14 AM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2008 1:46:14 AM
Xylenes, Total	ND	2.0		µg/L	1	7/23/2008 1:46:14 AM
Surr: 4-Bromofluorobenzene	96.7	68.9-122		%REC	1	7/23/2008 1:46:14 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 3rd QTR 2008

Work Order: 0807232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-16516 MBLK Batch ID: 16516 Analysis Date: 7/18/2008 10:56:35 AM

Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.117	mg/L	0	112	58	140			

Sample ID: LCS-16516 LCS Batch ID: 16516 Analysis Date: 7/18/2008 11:30:42 AM

Diesel Range Organics (DRO)	5.690	mg/L	1.0	114	74	157			
Surr: DNOP	0.5546	mg/L	0	111	58	140			

Sample ID: LCSD-16516 LCSD Batch ID: 16516 Analysis Date: 7/18/2008 12:05:04 PM

Diesel Range Organics (DRO)	5.588	mg/L	1.0	112	74	157	1.81	23	
Surr: DNOP	0.5674	mg/L	0	113	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807232-05A MSD MSD Batch ID: R29434 Analysis Date: 7/23/2008 4:16:06 AM

Gasoline Range Organics (GRO)	0.4614	mg/L	0.050	92.3	80	115	2.02	8.39	
Surr: BFB	18.88	mg/L	0	94.4	79.2	121	0	0	

Sample ID: 5ML RB MBLK Batch ID: R29434 Analysis Date: 7/22/2008 9:50:43 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	16.53	mg/L	0	82.6	79.2	121			

Sample ID: 2.5UG GRO LCS LCS Batch ID: R29434 Analysis Date: 7/22/2008 9:44:42 PM

Gasoline Range Organics (GRO)	0.4964	mg/L	0.050	99.3	80	115			
Surr: BFB	19.76	mg/L	0	98.8	79.2	121			

Sample ID: 0807232-05A MS MS Batch ID: R29434 Analysis Date: 7/23/2008 3:46:06 AM

Gasoline Range Organics (GRO)	0.4708	mg/L	0.050	94.2	80	115			
Surr: BFB	18.93	mg/L	0	94.6	79.2	121			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: River Terrace 3rd QTR 2008

Work Order: 0807232

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0807232-02A MSD		MSD			Batch ID: R29434		Analysis Date: 7/23/2008 2:46:17 AM		
Methyl tert-butyl ether (MTBE)	21.01	µg/L	2.5	104	51.2	138	1.83	28	
Benzene	20.18	µg/L	1.0	101	85.9	113	0.596	27	
Toluene	20.36	µg/L	1.0	102	86.4	113	0.700	19	
Ethylbenzene	20.33	µg/L	1.0	102	83.5	118	1.76	10	
Xylenes, Total	60.93	µg/L	2.0	102	83.4	122	0.239	13	
Surr: 4-Bromofluorobenzene	20.06	µg/L	0	100	68.9	122	0	0	
Sample ID: 5ML RB		MBLK			Batch ID: R29434		Analysis Date: 7/22/2008 9:50:43 AM		
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.31	µg/L	0	86.5	68.9	122			
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R29434		Analysis Date: 7/22/2008 8:44:51 PM		
Methyl tert-butyl ether (MTBE)	21.50	µg/L	2.5	108	51.2	138			
Benzene	20.25	µg/L	1.0	101	85.9	113			
Toluene	20.36	µg/L	1.0	102	86.4	113			
Ethylbenzene	20.85	µg/L	1.0	104	83.5	118			
Xylenes, Total	62.03	µg/L	2.0	103	83.4	122			
Surr: 4-Bromofluorobenzene	20.59	µg/L	0	103	68.9	122			
Sample ID: 0807232-02A MS		MS			Batch ID: R29434		Analysis Date: 7/23/2008 2:16:14 AM		
Methyl tert-butyl ether (MTBE)	20.63	µg/L	2.5	102	51.2	138			
Benzene	20.06	µg/L	1.0	100	85.9	113			
Toluene	20.22	µg/L	1.0	101	86.4	113			
Ethylbenzene	19.98	µg/L	1.0	99.9	83.5	118			
Xylenes, Total	61.08	µg/L	2.0	102	83.4	122			
Surr: 4-Bromofluorobenzene	20.02	µg/L	0	100	68.9	122			
Method: EPA 6010B: Total Recoverable Metals									
Sample ID: 0807232-05BMSD		MSD			Batch ID: 16603		Analysis Date: 7/30/2008 3:10:41 PM		
Lead	0.4764	mg/L	0.0050	94.2	75	125	0.0562	20	
Sample ID: MB-16603		MBLK			Batch ID: 16603		Analysis Date: 7/30/2008 12:15:10 PM		
Lead	ND	mg/L	0.0050						
Sample ID: MB-16603		MBLK			Batch ID: 16603		Analysis Date: 7/30/2008 2:48:28 PM		
Lead	ND	mg/L	0.0050						
Sample ID: LCS-16603		LCS			Batch ID: 16603		Analysis Date: 7/30/2008 12:17:40 PM		
Lead	0.4723	mg/L	0.0050	94.5	80	120			
Sample ID: LCS-16603		LCS			Batch ID: 16603		Analysis Date: 7/30/2008 2:51:22 PM		
Lead	0.4742	mg/L	0.0050	94.8	80	120			
Sample ID: 0807232-05BMS		MS			Batch ID: 16603		Analysis Date: 7/30/2008 3:07:51 PM		
Lead	0.4761	mg/L	0.0050	94.2	75	125			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

7/17/2008

Work Order Number 0807232

Received by: ARS

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

5°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action



COVER LETTER

Wednesday, December 17, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 4rd QTR 2008

Order No.: 0811148

Dear Cindy Hurtado:

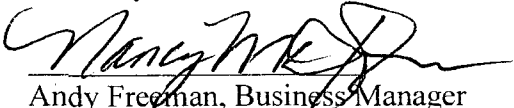
Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 11/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,


Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4rd QTR 2008
Lab Order: 0811148

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811148-01A	TP-8	R31186	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31186	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31251	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	R31252	EPA Method 8021B: Volatiles	11/11/2008 10:50:00 AM
0811148-01A	TP-8	17619	EPA Method 8015B: Diesel Range	11/11/2008 10:50:00 AM
0811148-01B	TP-8	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 10:50:00 AM
0811148-02A	TP-6	R31252	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02A	TP-6	17619	EPA Method 8015B: Diesel Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31186	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 11:05:00 AM
0811148-02A	TP-6	R31251	EPA Method 8021B: Volatiles	11/11/2008 11:05:00 AM
0811148-02B	TP-6	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 11:05:00 AM
0811148-03A	TP-1	R31186	EPA Method 8021B: Volatiles	11/11/2008 12:50:00 PM
0811148-03A	TP-1	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 12:50:00 PM
0811148-03A	TP-1	R31251	EPA Method 8021B: Volatiles	11/11/2008 12:50:00 PM
0811148-03A	TP-1	17619	EPA Method 8015B: Diesel Range	11/11/2008 12:50:00 PM
0811148-03B	TP-1	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 12:50:00 PM
0811148-04A	TP-2	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04A	TP-2	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:20:00 PM
0811148-04B	TP-2	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:20:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:23:00 PM
0811148-05A	TP-2 FD	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:23:00 PM
0811148-05B	TP-2 FD	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:23:00 PM
0811148-06A	TP-5	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4rd QTR 2008
Lab Order: 0811148

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811148-06A	TP-5	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31218	EPA Method 8015B: Gasoline Range	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06A	TP-5	R31252	EPA Method 8021B: Volatiles	11/11/2008 1:35:00 PM
0811148-06B	TP-5	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:35:00 PM
0811148-07A	TP-9	R31186	EPA Method 8021B: Volatiles	11/11/2008 1:50:00 PM
0811148-07A	TP-9	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 1:50:00 PM
0811148-07A	TP-9	R31251	EPA Method 8021B: Volatiles	11/11/2008 1:50:00 PM
0811148-07A	TP-9	17619	EPA Method 8015B: Diesel Range	11/11/2008 1:50:00 PM
0811148-07B	TP-9	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 1:50:00 PM
0811148-08A	DW-#1	17619	EPA Method 8015B: Diesel Range	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31186	EPA Method 8021B: Volatiles	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31186	EPA Method 8015B: Gasoline Range	11/11/2008 2:30:00 PM
0811148-08A	DW-#1	R31251	EPA Method 8021B: Volatiles	11/11/2008 2:30:00 PM
0811148-08B	DW-#1	17670	EPA Method 7470: Mercury	11/11/2008 2:30:00 PM
0811148-08B	DW-#1	17744	EPA 6010B: Total Recoverable Metals	11/11/2008 2:30:00 PM
0811148-09A	TRIP BLANK	R31251	EPA Method 8021B: Volatiles	
0811148-09A	TRIP BLANK	R31186	EPA Method 8021B: Volatiles	
0811148-09A	TRIP BLANK	R31186	EPA Method 8015B: Gasoline Range	

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-01

Client Sample ID: TP-8
Collection Date: 11/11/2008 10:50:00 AM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	8.6	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	132	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	9.6	0.25		mg/L	5	11/17/2008 3:07:10 PM
Surr: BFB	83.3	59.9-122		%REC	5	11/17/2008 3:07:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	13		µg/L	5	11/17/2008 3:07:10 PM
Benzene	ND	5.0		µg/L	5	11/17/2008 3:07:10 PM
Toluene	ND	5.0		µg/L	5	11/17/2008 3:07:10 PM
Ethylbenzene	270	5.0		µg/L	5	11/17/2008 3:07:10 PM
Xylenes, Total	920	10		µg/L	5	11/17/2008 3:07:10 PM
Surr: 4-Bromofluorobenzene	109	65.9-130		%REC	5	11/17/2008 3:07:10 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.017	0.0050		mg/L	1	12/4/2008 11:45:15 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.**Client Sample ID:** TP-6**Lab Order:** 0811148**Collection Date:** 11/11/2008 11:05:00 AM**Project:** River Terrace 4rd QTR 2008**Date Received:** 11/12/2008**Lab ID:** 0811148-02**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	3.1	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	129	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	3.4	0.25		mg/L	5	11/17/2008 3:40:17 PM
Surr: BFB	87.1	59.9-122		%REC	5	11/17/2008 3:40:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	13		µg/L	5	11/17/2008 3:40:17 PM
Benzene	29	5.0		µg/L	5	11/17/2008 3:40:17 PM
Toluene	ND	5.0		µg/L	5	11/17/2008 3:40:17 PM
Ethylbenzene	430	5.0		µg/L	5	11/17/2008 3:40:17 PM
Xylenes, Total	1200	100		µg/L	50	11/14/2008 11:35:17 PM
Surr: 4-Bromofluorobenzene	117	65.9-130		%REC	5	11/17/2008 3:40:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.018	0.0050		mg/L	1	12/4/2008 11:49:19 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-03

Client Sample ID: TP-1
Collection Date: 11/11/2008 12:50:00 PM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	17	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	132	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	51	13		mg/L	250	11/15/2008 12:05:42 AM
Surr: BFB	83.8	59.9-122		%REC	250	11/15/2008 12:05:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	630		µg/L	250	11/15/2008 12:05:42 AM
Benzene	1200	250		µg/L	250	11/15/2008 12:05:42 AM
Toluene	ND	250		µg/L	250	11/15/2008 12:05:42 AM
Ethylbenzene	2700	250		µg/L	250	11/15/2008 12:05:42 AM
Xylenes, Total	16000	500		µg/L	250	11/15/2008 12:05:42 AM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	250	11/15/2008 12:05:42 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.042	0.0050		mg/L	1	12/4/2008 12:01:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-04

Client Sample ID: TP-2
Collection Date: 11/11/2008 1:20:00 PM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	7.5	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	135	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	5.8	0.50		mg/L	10	11/17/2008 4:13:22 PM
Surr: BFB	83.5	59.9-122		%REC	10	11/17/2008 4:13:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	11/17/2008 4:13:22 PM
Benzene	310	10		µg/L	10	11/17/2008 4:13:22 PM
Toluene	ND	10		µg/L	10	11/17/2008 4:13:22 PM
Ethylbenzene	730	10		µg/L	10	11/17/2008 4:13:22 PM
Xylenes, Total	930	20		µg/L	10	11/17/2008 4:13:22 PM
Surr: 4-Bromofluorobenzene	109	65.9-130		%REC	10	11/17/2008 4:13:22 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.012	0.0050		mg/L	1	12/4/2008 12:05:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-05

Client Sample ID: TP-2 FD
Collection Date: 11/11/2008 1:23:00 PM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	7.2	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	132	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	4.4	0.50		mg/L	10	11/17/2008 4:46:17 PM
Surr: BFB	85.2	59.9-122		%REC	10	11/17/2008 4:46:17 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	11/17/2008 4:46:17 PM
Benzene	280	10		µg/L	10	11/17/2008 4:46:17 PM
Toluene	ND	10		µg/L	10	11/17/2008 4:46:17 PM
Ethylbenzene	530	10		µg/L	10	11/17/2008 4:46:17 PM
Xylenes, Total	580	20		µg/L	10	11/17/2008 4:46:17 PM
Surr: 4-Bromofluorobenzene	107	65.9-130		%REC	10	11/17/2008 4:46:17 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.012	0.0050		mg/L	1	12/4/2008 12:09:15 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-06

Client Sample ID: TP-5
Collection Date: 11/11/2008 1:35:00 PM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	8.5	1.0		mg/L	1	11/13/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/13/2008
Surr: DNOP	139	58-140		%REC	1	11/13/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	38	2.5		mg/L	50	11/17/2008 5:19:15 PM
Surr: BFB	82.5	59.9-122		%REC	50	11/17/2008 5:19:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	11/20/2008 11:41:35 PM
Benzene	16	10		µg/L	10	11/20/2008 11:41:35 PM
Toluene	10	10		µg/L	10	11/20/2008 11:41:35 PM
Ethylbenzene	2400	50		µg/L	50	11/17/2008 5:19:15 PM
Xylenes, Total	12000	500		µg/L	250	11/15/2008 1:36:33 AM
Surr: 4-Bromofluorobenzene	108	65.9-130		%REC	50	11/17/2008 5:19:15 PM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.029	0.0050		mg/L	1	12/4/2008 12:14:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-07

Client Sample ID: TP-9
Collection Date: 11/11/2008 1:50:00 PM
Date Received: 11/12/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	137	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/15/2008 2:06:59 AM
Surr: BFB	80.2	59.9-122		%REC	1	11/15/2008 2:06:59 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/15/2008 2:06:59 AM
Benzene	ND	1.0		µg/L	1	11/15/2008 2:06:59 AM
Toluene	ND	1.0		µg/L	1	11/15/2008 2:06:59 AM
Ethylbenzene	ND	1.0		µg/L	1	11/15/2008 2:06:59 AM
Xylenes, Total	ND	2.0		µg/L	1	11/15/2008 2:06:59 AM
Surr: 4-Bromofluorobenzene	94.4	65.9-130		%REC	1	11/15/2008 2:06:59 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.0080	0.0050		mg/L	1	12/4/2008 12:17:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.**Client Sample ID:** DW-#1**Lab Order:** 0811148**Collection Date:** 11/11/2008 2:30:00 PM**Project:** River Terrace 4rd QTR 2008**Date Received:** 11/12/2008**Lab ID:** 0811148-08**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	137	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/15/2008 2:37:06 AM
Surr: BFB	81.6	59.9-122		%REC	1	11/15/2008 2:37:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/15/2008 2:37:06 AM
Benzene	ND	1.0		µg/L	1	11/15/2008 2:37:06 AM
Toluene	ND	1.0		µg/L	1	11/15/2008 2:37:06 AM
Ethylbenzene	ND	1.0		µg/L	1	11/15/2008 2:37:06 AM
Xylenes, Total	ND	2.0		µg/L	1	11/15/2008 2:37:06 AM
Surr: 4-Bromofluorobenzene	96.7	65.9-130		%REC	1	11/15/2008 2:37:06 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	ND	0.0050		mg/L	1	12/4/2008 12:21:40 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811148
Project: River Terrace 4rd QTR 2008
Lab ID: 0811148-09

Client Sample ID: TRIP BLANK
Collection Date:
Date Received: 11/12/2008
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/15/2008 6:09:56 AM
Surr: BFB	79.8	59.9-122		%REC	1	11/15/2008 6:09:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/15/2008 6:09:56 AM
Benzene	ND	1.0		µg/L	1	11/15/2008 6:09:56 AM
Toluene	ND	1.0		µg/L	1	11/15/2008 6:09:56 AM
Ethylbenzene	ND	1.0		µg/L	1	11/15/2008 6:09:56 AM
Xylenes, Total	ND	2.0		µg/L	1	11/15/2008 6:09:56 AM
Surr: 4-Bromofluorobenzene	93.5	65.9-130		%REC	1	11/15/2008 6:09:56 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

17-Dec-08

DATES REPORT

Lab Order: 0811148

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811148-01A	TP-8	11/11/2008 10:50:00 AM	Aqueous	EPA Method 8015B: Diesel Range	ID(17A)_2_081113_	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/14/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/14/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-01B				EPA Method 8015B: Diesel Range	ID(17A)_2_081113_	17619	11/13/2008	11/13/2008
0811148-02A	TP-6	11/11/2008 11:05:00 AM		EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/14/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/14/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-02B				EPA Method 8015B: Diesel Range	ID(17A)_2_081113_	17619	11/13/2008	11/13/2008
0811148-03A	TP-1	11/11/2008 12:50:00 PM		EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-03B				EPA Method 8015B: Diesel Range	ID(17A)_2_081113_	17619	11/13/2008	11/13/2008
0811148-04A	TP-2	11/11/2008 1:20:00 PM		EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008

Hall Environmental Analysis Laboratory, Inc.

17-Dec-08

DATES REPORT

Lab Order: 0811148
 Client: Western Refining Southwest, Inc.
 Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811148-04A	TP-2	11/11/2008 1:20:00 PM	Aqueous	EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
0811148-04B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-05A	TP-2 FD	11/11/2008 1:23:00 PM		EPA Method 8015B: Diesel Range	ID(17A)_2_0811134	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
0811148-05B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-06A	TP-5	11/11/2008 1:35:00 PM		EPA Method 8015B: Diesel Range	ID(17A)_2_0811134	17619	11/13/2008	11/13/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081120A	R31251		11/20/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31186		11/17/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
0811148-06B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-07A	TP-9	11/11/2008 1:50:00 PM		EPA Method 8015B: Diesel Range	ID(17A)_2_0811144	17619	11/13/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008

DATES REPORT

Lab Order: 0811148

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811148-07B	TP-9	11/11/2008 1:50:00 PM	Aqueous	EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-08A	DW-#1	11/11/2008 2:30:00 PM		EPA Method 8015B: Diesel Range	ID(17A)_2_081114A	17619	11/13/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
0811148-08B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811148-09A	TRIP BLANK		Trip Blank	EPA Method 8015B: Gasoline Range	ZEUS_081114A	R31186		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114B	R31251		11/15/2008
				EPA Method 8021B: Volatiles	ZEUS_081114A	R31186		11/15/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4rd QTR 2008

Work Order: 0811148

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-17619		<i>MBLK</i>							
					Batch ID: 17619		Analysis Date:		11/13/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.284	mg/L	0	128	58	140			
Sample ID: LCS-17619		<i>LCS</i>							
					Batch ID: 17619		Analysis Date:		11/13/2008
Diesel Range Organics (DRO)	6.135	mg/L	1.0	123	74	157			
Surr: DNOP	0.6477	mg/L	0	130	58	140			
Sample ID: LCSD-17619		<i>LCSD</i>							
					Batch ID: 17619		Analysis Date:		11/13/2008
Diesel Range Organics (DRO)	6.155	mg/L	1.0	123	74	157	0.314	23	
Surr: DNOP	0.6626	mg/L	0	133	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0811148-07A MSD		<i>MSD</i>							
					Batch ID: R31186		Analysis Date:		11/15/2008 3:38:06 AM
Gasoline Range Organics (GRO)	0.4078	mg/L	0.050	81.6	80	115	2.66	8.39	
Surr: BFB	16.61	mg/L	0	83.0	59.9	122	0	0	
Sample ID: 5ML RB		<i>MBLK</i>							
					Batch ID: R31218		Analysis Date:		11/17/2008 9:27:00 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	19.62	mg/L	0	98.1	59.9	122			
Sample ID: 5ML RB		<i>MBLK</i>							
					Batch ID: R31186		Analysis Date:		11/14/2008 9:10:56 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	16.35	mg/L	0	81.8	59.9	122			
Sample ID: 2.5UG GRO LCS		<i>LCS</i>							
					Batch ID: R31186		Analysis Date:		11/15/2008 12:43:57 PM
Gasoline Range Organics (GRO)	0.4030	mg/L	0.050	80.6	80	115			
Surr: BFB	16.70	mg/L	0	83.5	59.9	122			
Sample ID: 2.5UG GRO LCS		<i>LCS</i>							
					Batch ID: R31218		Analysis Date:		11/17/2008 7:51:29 PM
Gasoline Range Organics (GRO)	0.4146	mg/L	0.050	82.9	80	115			
Surr: BFB	16.60	mg/L	0	83.0	59.9	122			
Sample ID: 0811148-07A MS		<i>MS</i>							
					Batch ID: R31186		Analysis Date:		11/15/2008 3:07:38 AM
Gasoline Range Organics (GRO)	0.4188	mg/L	0.050	83.8	80	115			
Surr: BFB	16.83	mg/L	0	84.2	59.9	122			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4rd QTR 2008

Work Order: 0811148

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0811148-07A MSD		<i>MSD</i>			Batch ID: R31251	Analysis Date: 11/15/2008 3:38:06 AM			
Benzene	6.602	µg/L	1.0	97.1	85.9	113	0.815	27	
Toluene	47.62	µg/L	1.0	99.2	86.4	113	1.41	19	
Ethylbenzene	10.37	µg/L	1.0	92.6	83.5	118	0.692	10	
Xylenes, Total	53.24	µg/L	2.0	95.1	83.4	122	1.05	13	
Surr: 4-Bromofluorobenzene	20.76	µg/L	0	104	65.9	130	0	0	
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R31251	Analysis Date: 11/14/2008 9:10:56 AM			
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.30	µg/L	0	96.5	65.9	130			
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R31251	Analysis Date: 11/14/2008 9:10:56 AM			
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.30	µg/L	0	96.5	65.9	130			
Sample ID: b 10		<i>MBLK</i>			Batch ID: R31252	Analysis Date: 11/17/2008 2:03:31 PM			
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	18.73	µg/L	0	93.6	65.9	130			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R31251	Analysis Date: 11/14/2008 6:28:37 PM			
Methyl tert-butyl ether (MTBE)	24.90	µg/L	2.5	125	51.2	138			
Benzene	22.03	µg/L	1.0	110	85.9	113			
Toluene	22.64	µg/L	1.0	113	86.4	113			S
Ethylbenzene	22.93	µg/L	1.0	115	83.5	118			
Xylenes, Total	68.94	µg/L	2.0	115	83.4	122			
Surr: 4-Bromofluorobenzene	21.29	µg/L	0	106	65.9	130			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R31252	Analysis Date: 11/17/2008 7:21:05 PM			
Methyl tert-butyl ether (MTBE)	19.40	µg/L	2.5	97.0	51.2	138			
Benzene	21.66	µg/L	1.0	108	85.9	113			
Toluene	21.98	µg/L	1.0	110	86.4	113			
Ethylbenzene	21.95	µg/L	1.0	110	83.5	118			
Xylenes, Total	66.17	µg/L	2.0	110	83.4	122			
Surr: 4-Bromofluorobenzene	20.53	µg/L	0	103	65.9	130			
Sample ID: 0811148-07A MS		<i>MS</i>			Batch ID: R31251	Analysis Date: 11/15/2008 3:07:38 AM			
Benzene	6.656	µg/L	1.0	97.9	85.9	113			
Toluene	48.30	µg/L	1.0	101	86.4	113			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Work Order: 0811148

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 0811148-07A MS

MS

Batch ID: R31251

Analysis Date: 11/15/2008 3:07:38 AM

Ethylbenzene 10.44 µg/L 1.0 93.2 83.5 118

Xylenes, Total 53.80 µg/L 2.0 96.1 83.4 122

Surr: 4-Bromofluorobenzene 21.02 µg/L 0 105 65.9 130

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-17744

MBLK

Batch ID: 17744

Analysis Date: 12/4/2008 11:34:21 AM

Lead ND mg/L 0.0050

Sample ID: LCS-17744

LCS

Batch ID: 17744

Analysis Date: 12/4/2008 11:39:05 AM

Lead 0.4707 mg/L 0.0050 94.1 80 120

Qualifiers:

E Estimated value

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

11/12/2008

Work Order Number 0811148

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☒

No ☐

N/A ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

N/A ☐

Container/Temp Blank temperature?

2°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: Western Refining (Blmfd)

Mailing Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

River Terrace 4th QTR 2008

Project #:

Project Manager:

Sampler: BA/RMK

On Ice: ☒ Yes ☐ No

Sample Temperature: 2

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No
11/11/08	1500	160	TP-9	3-VOA	HCL	7
11/11/08	2300	160	1	1500ml	HNO3	7
11/11/08	2300	160	DW-#1	3-VOA	HCL	8
11/11/08	2300	160	trip blank	1-500ml	HNO3	8
11/11/08	2300	160	trip blank			9

Date: 11/11/08

Time: 3pm

Relinquished by: Cindy Hurtado

Relinquished by: Cindy Hurtado

Received by: [Signature]

Date: 11/12/08

Date: 11/12/08

Time: 1012

Remarks:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTX + MTBE + TMB (8021)	<input checked="" type="checkbox"/>
BTX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/>
TPH Method 8015B (Gas/Diesel)	<input checked="" type="checkbox"/>
TPH (Method 418.1)	<input type="checkbox"/>
EDB (Method 504.1)	<input type="checkbox"/>
8310 (PNA or PAH)	<input type="checkbox"/>
RCRA 8 Metals	<input type="checkbox"/>
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	<input type="checkbox"/>
8081 Pesticides / 8082 PCB's	<input type="checkbox"/>
8260B (VOA)	<input type="checkbox"/>
8270 (Semi-VOA)	<input checked="" type="checkbox"/>
10ml PB #119	<input checked="" type="checkbox"/>
10ml PB #119	<input checked="" type="checkbox"/>
Air Bubbles (Y or N)	<input type="checkbox"/>

COVER LETTER

Tuesday, December 16, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 4rd QTR 2008

Order No.: 0811178

Dear Cindy Hurtado:

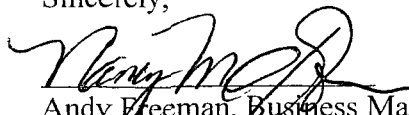
Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 11/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,


Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4rd QTR 2008
Lab Order: 0811178

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811178-01A	TP-7	R31218	EPA Method 8021B: Volatiles	11/12/2008 9:55:00 AM
0811178-01A	TP-7	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 9:55:00 AM
0811178-01A	TP-7	R31252	EPA Method 8021B: Volatiles	11/12/2008 9:55:00 AM
0811178-01A	TP-7	17633	EPA Method 8015B: Diesel Range	11/12/2008 9:55:00 AM
0811178-01B	TP-7	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 9:55:00 AM
0811178-02A	MW#49	R31252	EPA Method 8021B: Volatiles	11/12/2008 10:15:00 AM
0811178-02A	MW#49	17633	EPA Method 8015B: Diesel Range	11/12/2008 10:15:00 AM
0811178-02A	MW#49	R31218	EPA Method 8021B: Volatiles	11/12/2008 10:15:00 AM
0811178-02A	MW#49	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 10:15:00 AM
0811178-02B	MW#49	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 10:15:00 AM
0811178-03A	TP-10	R31218	EPA Method 8021B: Volatiles	11/12/2008 10:40:00 AM
0811178-03A	TP-10	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 10:40:00 AM
0811178-03A	TP-10	R31252	EPA Method 8021B: Volatiles	11/12/2008 10:40:00 AM
0811178-03A	TP-10	17633	EPA Method 8015B: Diesel Range	11/12/2008 10:40:00 AM
0811178-03B	TP-10	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 10:40:00 AM
0811178-04A	TP-13	R31252	EPA Method 8021B: Volatiles	11/12/2008 11:00:00 AM
0811178-04A	TP-13	17633	EPA Method 8015B: Diesel Range	11/12/2008 11:00:00 AM
0811178-04A	TP-13	R31218	EPA Method 8021B: Volatiles	11/12/2008 11:00:00 AM
0811178-04A	TP-13	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 11:00:00 AM
0811178-04B	TP-13	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 11:00:00 AM
0811178-05A	FIELD BLANK	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 11:15:00 AM
0811178-05A	FIELD BLANK	R31252	EPA Method 8021B: Volatiles	11/12/2008 11:15:00 AM
0811178-05A	FIELD BLANK	R31218	EPA Method 8021B: Volatiles	11/12/2008 11:15:00 AM
0811178-06A	TP-12	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:10:00 PM
0811178-06A	TP-12	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:10:00 PM
0811178-06B	TP-12	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:10:00 PM
0811178-07A	TP-11	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:30:00 PM
0811178-07A	TP-11	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:30:00 PM
0811178-07B	TP-11	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:30:00 PM
0811178-08A	TP-3	17633	EPA Method 8015B: Diesel Range	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31218	EPA Method 8021B: Volatiles	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31218	EPA Method 8015B: Gasoline Range	11/12/2008 1:50:00 PM
0811178-08A	TP-3	R31252	EPA Method 8021B: Volatiles	11/12/2008 1:50:00 PM
0811178-08B	TP-3	17744	EPA 6010B: Total Recoverable Metals	11/12/2008 1:50:00 PM

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4rd QTR 2008
Lab Order: 0811178

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811178-08B	TP-3	17670	EPA Method 7470: Mercury	11/12/2008 1:50:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-01

Client Sample ID: TP-7
Collection Date: 11/12/2008 9:55:00 AM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	133	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 12:55:14 AM
Surr: BFB	81.3	59.9-122		%REC	1	11/18/2008 12:55:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 12:55:14 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 12:55:14 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 12:55:14 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 12:55:14 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 12:55:14 AM
Surr: 4-Bromofluorobenzene	96.3	65.9-130		%REC	1	11/18/2008 12:55:14 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	ND	0.0050		mg/L	1	12/4/2008 12:25:36 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-02

Client Sample ID: MW#49
Collection Date: 11/12/2008 10:15:00 AM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	128	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 1:25:34 AM
Surr: BFB	84.0	59.9-122		%REC	1	11/18/2008 1:25:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 1:25:34 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 1:25:34 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 1:25:34 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 1:25:34 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 1:25:34 AM
Surr: 4-Bromofluorobenzene	93.9	65.9-130		%REC	1	11/18/2008 1:25:34 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.0068	0.0050		mg/L	1	12/4/2008 12:34:33 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-03

Client Sample ID: TP-10
Collection Date: 11/12/2008 10:40:00 AM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	131	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 1:55:51 AM
Surr: BFB	82.4	59.9-122		%REC	1	11/18/2008 1:55:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 1:55:51 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 1:55:51 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 1:55:51 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 1:55:51 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 1:55:51 AM
Surr: 4-Bromofluorobenzene	99.9	65.9-130		%REC	1	11/18/2008 1:55:51 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.0059	0.0050		mg/L	1	12/4/2008 12:51:27 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-04

Client Sample ID: TP-13
Collection Date: 11/12/2008 11:00:00 AM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	127	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 2:26:16 AM
Surr: BFB	78.8	59.9-122		%REC	1	11/18/2008 2:26:16 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 2:26:16 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 2:26:16 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 2:26:16 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 2:26:16 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 2:26:16 AM
Surr: 4-Bromofluorobenzene	93.1	65.9-130		%REC	1	11/18/2008 2:26:16 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.0073	0.0050		mg/L	1	12/4/2008 12:54:19 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-05

Client Sample ID: FIELD BLANK
Collection Date: 11/12/2008 11:15:00 AM
Date Received: 11/13/2008
Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 2:56:38 AM
Surr: BFB	78.5	59.9-122		%REC	1	11/18/2008 2:56:38 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 2:56:38 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 2:56:38 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 2:56:38 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 2:56:38 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 2:56:38 AM
Surr: 4-Bromofluorobenzene	90.8	65.9-130		%REC	1	11/18/2008 2:56:38 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-06

Client Sample ID: TP-12
Collection Date: 11/12/2008 1:10:00 PM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	135	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 3:26:56 AM
Surr: BFB	78.7	59.9-122		%REC	1	11/18/2008 3:26:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 3:26:56 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 3:26:56 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 3:26:56 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 3:26:56 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 3:26:56 AM
Surr: 4-Bromofluorobenzene	92.3	65.9-130		%REC	1	11/18/2008 3:26:56 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	ND	0.0050		mg/L	1	12/4/2008 1:00:14 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-07

Client Sample ID: TP-11
Collection Date: 11/12/2008 1:30:00 PM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	135	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 3:57:21 AM
Surr: BFB	79.2	59.9-122		%REC	1	11/18/2008 3:57:21 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 3:57:21 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 3:57:21 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 3:57:21 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 3:57:21 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 3:57:21 AM
Surr: 4-Bromofluorobenzene	92.5	65.9-130		%REC	1	11/18/2008 3:57:21 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	0.0058	0.0050		mg/L	1	12/4/2008 1:03:08 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 16-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811178
Project: River Terrace 4rd QTR 2008
Lab ID: 0811178-08

Client Sample ID: TP-3
Collection Date: 11/12/2008 1:50:00 PM
Date Received: 11/13/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	11/14/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/14/2008
Surr: DNOP	131	58-140		%REC	1	11/14/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	11/18/2008 4:27:53 AM
Surr: BFB	80.0	59.9-122		%REC	1	11/18/2008 4:27:53 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/18/2008 4:27:53 AM
Benzene	ND	1.0		µg/L	1	11/18/2008 4:27:53 AM
Toluene	ND	1.0		µg/L	1	11/18/2008 4:27:53 AM
Ethylbenzene	ND	1.0		µg/L	1	11/18/2008 4:27:53 AM
Xylenes, Total	ND	2.0		µg/L	1	11/18/2008 4:27:53 AM
Surr: 4-Bromofluorobenzene	94.2	65.9-130		%REC	1	11/18/2008 4:27:53 AM
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: SNV
Lead	ND	0.0050		mg/L	1	12/4/2008 1:06:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

16-Dec-08

Lab Order: 0811178

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument Run ID	QC Batch ID	Prep Date	Analysis Date
0811178-01A	TP-7	11/12/2008 9:55:00 AM	Aqueous	EPA Method 8015B: Diesel Range	ID(17A)_2_081114	17633	11/14/2008	11/14/2008
0811178-01B				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
0811178-02A	MW#49	11/12/2008 10:15:00 AM		EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-02B				EPA Method 8015B: Diesel Range	ID(17A)_2_081114	17633	11/14/2008	11/14/2008
0811178-03A	TP-10	11/12/2008 10:40:00 AM		EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218		11/18/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-03B				EPA Method 8015B: Diesel Range	ID(17A)_2_081114	17633	11/14/2008	11/14/2008
0811178-04A	TP-13	11/12/2008 11:00:00 AM		EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-04B				EPA Method 8015B: Diesel Range	ID(17A)_2_081114	17633	11/14/2008	11/14/2008
0811178-05A	FIELD BLANK	11/12/2008 11:15:00 AM	Trip Blank	EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252		11/18/2008
				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744	11/30/2008	12/4/2008
0811178-06A	TP-12	11/12/2008 1:10:00 PM	Aqueous	EPA Method 8015B: Diesel Range	ID(17A)_2_081114	17633	11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218		11/18/2008

DATES REPORT

Lab Order: 0811178

Client: Western Refining Southwest, Inc.

Project: River Terrace 4rd QTR 2008

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Instrument	Run ID	QC Batch ID	Prep Date	Analysis Date
0811178-06A	TP-12	11/12/2008 1:10:00 PM	Aqueous	EPA Method 8021B: Volatiles	ZEUS_081117A	R31218			11/18/2008
0811178-06B				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252			11/18/2008
0811178-07A	TP-11	11/12/2008 1:30:00 PM		EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744		11/30/2008	12/4/2008
				EPA Method 8015B: Diesel Range	ID(17A) 2_081114	17633		11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218			11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218			11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252			11/18/2008
0811178-07B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744		11/30/2008	12/4/2008
0811178-08A	TP-3	11/12/2008 1:50:00 PM		EPA Method 8015B: Diesel Range	ID(17A) 2_081114	17633		11/14/2008	11/14/2008
				EPA Method 8015B: Gasoline Range	ZEUS_081117A	R31218			11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117A	R31218			11/18/2008
				EPA Method 8021B: Volatiles	ZEUS_081117B	R31252			11/18/2008
0811178-08B				EPA 6010B: Total Recoverable Metals	ISIS_081204A	17744		11/30/2008	12/4/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4rd QTR 2008

Work Order: 0811178

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-17633			MBLK		Batch ID: 17633		Analysis Date: 11/14/2008	
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.260	mg/L	0	126	58	140		
Sample ID: LCS-17633			LCS		Batch ID: 17633		Analysis Date: 11/14/2008	
Diesel Range Organics (DRO)	6.405	mg/L	1.0	128	74	157		
Surr: DNOP	0.6584	mg/L	0	132	58	140		
Sample ID: LCSD-17633			LCSD		Batch ID: 17633		Analysis Date: 11/14/2008	
Diesel Range Organics (DRO)	6.604	mg/L	1.0	132	74	157	3.06	23
Surr: DNOP	0.6703	mg/L	0	134	58	140	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB	MBLK				Batch ID: R31218	Analysis Date: 11/17/2008 9:27:00 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			
Surr: BFB	19.62	mg/L	0	98.1	59.9	122
Sample ID: 2.5UG GRO LCS	LCS				Batch ID: R31218	Analysis Date: 11/17/2008 7:51:29 PM
Gasoline Range Organics (GRO)	0.4146	mg/L	0.050	82.9	80	115
Surr: BFB	16.60	mg/L	0	83.0	59.9	122

Method: EPA Method 8021B: Volatiles

Sample ID: b 10	MBLK				Batch ID: R31252	Analysis Date: 11/17/2008 2:03:31 PM
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5			
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Xylenes, Total	ND	µg/L	2.0			
Surr: 4-Bromofluorobenzene	18.73	µg/L	0	93.6	65.9	130
Sample ID: 100NG BTEX LCS	LCS				Batch ID: R31252	Analysis Date: 11/17/2008 7:21:05 PM
Methyl tert-butyl ether (MTBE)	19.40	µg/L	2.5	97.0	51.2	138
Benzene	21.66	µg/L	1.0	108	85.9	113
Toluene	21.98	µg/L	1.0	110	86.4	113
Ethylbenzene	21.95	µg/L	1.0	110	83.5	118
Xylenes, Total	66.17	µg/L	2.0	110	83.4	122
Surr: 4-Bromofluorobenzene	20.53	µg/L	0	103	65.9	130

Method: EPA 6010B: Total Recoverable Metals

Sample ID: MB-17744	MBLK				Batch ID: 17744	Analysis Date: 12/4/2008 11:34:21 AM
Lead	ND	mg/L	0.0050			
Sample ID: LCS-17744	LCS				Batch ID: 17744	Analysis Date: 12/4/2008 11:39:05 AM
Lead	0.4707	mg/L	0.0050	94.1	80	120

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

11/13/2008

Work Order Number 0811178

Received by: TLS

Sample ID labels checked by:

Checklist completed by:

Signature

Date

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Container/Temp Blank temperature?	4°	<6° C Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

COVER LETTER

Friday, March 21, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 1st Qtr-2008-VS

Order No.: 0803096

Dear Cindy Hurtado:


Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



CLIENT: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS
Lab Order: 0803096

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803096-01A	TP-2	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 11:55:00 AM
0803096-01A	TP-2	R27684	EPA Method 8021B: Volatiles	3/10/2008 11:55:00 AM
0803096-02A	TP-1	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 12:15:00 PM
0803096-02A	TP-1	R27684	EPA Method 8021B: Volatiles	3/10/2008 12:15:00 PM
0803096-03A	TP-6	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 1:50:00 PM
0803096-03A	TP-6	R27684	EPA Method 8021B: Volatiles	3/10/2008 1:50:00 PM
0803096-04A	TP-8	R27700	EPA Method 8015B: Gasoline Range	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27700	EPA Method 8021B: Volatiles	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 2:15:00 PM
0803096-04A	TP-8	R27684	EPA Method 8021B: Volatiles	3/10/2008 2:15:00 PM
0803096-05A	TP-7	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 2:30:00 PM
0803096-05A	TP-7	R27684	EPA Method 8021B: Volatiles	3/10/2008 2:30:00 PM
0803096-06A	Soil Vapor Field Bla	R27684	EPA Method 8015B: Gasoline Range	3/10/2008 12:00:00 PM
0803096-06A	Soil Vapor Field Bla	R27684	EPA Method 8021B: Volatiles	3/10/2008 12:00:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS
Lab Order: 0803096

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-05A DUP: Elevated surrogate due to matrix interference. Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-02A: Elevated surrogate due to matrix interference. Analytical Comments for METHOD 8015GRO_A, SAMPLE 0803096-05A: Elevated surrogate due to matrix interference.

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803096
Project: River Terrace 1st Qtr-2008-VS
Lab ID: 0803096-01

Client Sample ID: TP-2
Collection Date: 3/10/2008 11:55:00 AM
Date Received: 3/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	18	5.0		µg/L	1	3/12/2008 11:36:12 AM
Surr: BFB	128	76.8-150		%REC	1	3/12/2008 11:36:12 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.57	0.10		µg/L	1	3/12/2008 11:36:12 AM
Toluene	ND	0.10		µg/L	1	3/12/2008 11:36:12 AM
Ethylbenzene	0.36	0.10		µg/L	1	3/12/2008 11:36:12 AM
Xylenes, Total	1.1	0.30		µg/L	1	3/12/2008 11:36:12 AM
Surr: 4-Bromofluorobenzene	99.4	70.2-105		%REC	1	3/12/2008 11:36:12 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803096
Project: River Terrace 1st Qtr-2008-VS
Lab ID: 0803096-02

Client Sample ID: TP-1
Collection Date: 3/10/2008 12:15:00 PM
Date Received: 3/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	90	5.0		µg/L	1	3/12/2008 12:07:00 PM
Surr: BFB	157	76.8-150	S	%REC	1	3/12/2008 12:07:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	4.5	0.10		µg/L	1	3/12/2008 12:07:00 PM
Toluene	ND	0.10		µg/L	1	3/12/2008 12:07:00 PM
Ethylbenzene	6.0	0.10		µg/L	1	3/12/2008 12:07:00 PM
Xylenes, Total	11	0.30		µg/L	1	3/12/2008 12:07:00 PM
Surr: 4-Bromofluorobenzene	108	70.2-105	S	%REC	1	3/12/2008 12:07:00 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-6

Lab Order: 0803096

Collection Date: 3/10/2008 1:50:00 PM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/12/2008

Lab ID: 0803096-03

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	9.8	5.0		µg/L	1	3/12/2008 12:37:41 PM
Surr: BFB	117	76.8-150		%REC	1	3/12/2008 12:37:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/12/2008 12:37:41 PM
Toluene	ND	0.10		µg/L	1	3/12/2008 12:37:41 PM
Ethylbenzene	0.49	0.10		µg/L	1	3/12/2008 12:37:41 PM
Xylenes, Total	1.3	0.30		µg/L	1	3/12/2008 12:37:41 PM
Surr: 4-Bromofluorobenzene	91.3	70.2-105		%REC	1	3/12/2008 12:37:41 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-8

Lab Order: 0803096

Collection Date: 3/10/2008 2:15:00 PM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/12/2008

Lab ID: 0803096-04

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	5.0	5.0		µg/L	1	3/12/2008 1:51:35 PM
Surr: BFB	115	76.8-150		%REC	1	3/12/2008 1:51:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/12/2008 1:51:35 PM
Toluene	ND	0.10		µg/L	1	3/12/2008 1:51:35 PM
Ethylbenzene	0.23	0.10		µg/L	1	3/12/2008 1:51:35 PM
Xylenes, Total	1.2	0.30		µg/L	1	3/12/2008 1:51:35 PM
Surr: 4-Bromofluorobenzene	98.2	70.2-105		%REC	1	3/12/2008 1:51:35 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-7

Lab Order: 0803096

Collection Date: 3/10/2008 2:30:00 PM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/12/2008

Lab ID: 0803096-05

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	47	5.0		µg/L	1	3/12/2008 2:22:21 PM
Surr: BFB	163	76.8-150	S	%REC	1	3/12/2008 2:22:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.13	0.10		µg/L	1	3/12/2008 2:22:21 PM
Toluene	0.10	0.10		µg/L	1	3/12/2008 2:22:21 PM
Ethylbenzene	0.44	0.10		µg/L	1	3/12/2008 2:22:21 PM
Xylenes, Total	2.6	0.30		µg/L	1	3/12/2008 2:22:21 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	3/12/2008 2:22:21 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: Soil Vapor Field Blank

Lab Order: 0803096

Collection Date: 3/10/2008 12:00:00 PM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/12/2008

Lab ID: 0803096-06

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/12/2008 3:22:57 PM
Surr: BFB	109	76.8-150		%REC	1	3/12/2008 3:22:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/12/2008 3:22:57 PM
Toluene	ND	0.10		µg/L	1	3/12/2008 3:22:57 PM
Ethylbenzene	ND	0.10		µg/L	1	3/12/2008 3:22:57 PM
Xylenes, Total	ND	0.30		µg/L	1	3/12/2008 3:22:57 PM
Surr: 4-Bromofluorobenzene	98.0	70.2-105		%REC	1	3/12/2008 3:22:57 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS

Work Order: 0803096

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0803096-05A DUP *DUP* Batch ID: R27684 Analysis Date: 3/12/2008 2:52:36 PM

Gasoline Range Organics (GRO)	48.60	µg/L	5.0						
Surr: BFB	3314	µg/L	0	166	76.8	150			S

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB *MBLK* Batch ID: R27684 Analysis Date: 3/12/2008 9:03:18 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.44	mg/L	0	102	79.2	121			

Sample ID: 2.5UG GRO LCS *LCS* Batch ID: R27684 Analysis Date: 3/12/2008 5:54:50 PM

Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115			
Surr: BFB	22.09	mg/L	0	110	79.2	121			

Method: EPA Method 8021B: Volatiles

Sample ID: 0803096-05A DUP *DUP* Batch ID: R27684 Analysis Date: 3/12/2008 2:52:36 PM

Benzene	0.1274	µg/L	0.10						
Toluene	0.1022	µg/L	0.10						
Ethylbenzene	0.4356	µg/L	0.10						
Xylenes, Total	ND	µg/L	0.30						
Surr: 4-Bromofluorobenzene	2.136	µg/L	0	107	70.2	105			S

Method: EPA Method 8021B: Volatiles

Sample ID: b 5 *MBLK* Batch ID: R27684 Analysis Date: 3/12/2008 11:05:24 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.90	µg/L	0	89.5	68.9	122			

Sample ID: 100NG BTEX LCS *LCS* Batch ID: R27684 Analysis Date: 3/12/2008 4:54:11 PM

Benzene	19.41	µg/L	1.0	97.0	85.9	113			
Toluene	19.60	µg/L	1.0	98.0	86.4	113			
Ethylbenzene	20.04	µg/L	1.0	100	83.5	118			
Xylenes, Total	58.09	µg/L	2.0	95.6	83.4	122			
Surr: 4-Bromofluorobenzene	20.40	µg/L	0	102	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS

Work Order: 0803096

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0803097-03A DUP DUP

Batch ID: R27700 Analysis Date: 3/13/2008 3:21:28 PM

Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8	
Surr: BFB	2164	µg/L	0	108	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB MBLK

Batch ID: R27700 Analysis Date: 3/13/2008 9:42:09 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.68	mg/L	0	103	79.2	121			

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R27700 Analysis Date: 3/13/2008 7:24:36 PM

Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115			
Surr: BFB	22.39	mg/L	0	112	79.2	121			

Method: EPA Method 8021B: Volatiles

Sample ID: 0803097-03A DUP DUP

Batch ID: R27700 Analysis Date: 3/13/2008 3:21:28 PM

Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.982	µg/L	0	99.1	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB MBLK

Batch ID: R27700 Analysis Date: 3/13/2008 9:42:09 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.08	µg/L	0	95.4	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R27700 Analysis Date: 3/13/2008 6:24:20 PM

Benzene	19.57	µg/L	1.0	97.8	85.9	113			
Toluene	19.99	µg/L	1.0	100	86.4	113			
Ethylbenzene	20.09	µg/L	1.0	100	83.5	118			
Xylenes, Total	58.66	µg/L	2.0	97.1	83.4	122			
Surr: 4-Bromofluorobenzene	20.42	µg/L	0	102	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/12/2008

Work Order Number 0803096

Received by: ARS

Checklist completed by:

Signature

Sample ID labels checked by

Initials

Matrix

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: Per CH collection terms on Cox are correct/RS 3/12/08

Corrective Action _____

**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**

(Western Refining)

Bloomfield, NM 87413

Fax #: 505-632-3911

1700 Field Bank

Received By: (Signature)

Received By: (Signature)

Std

Other:

Project Name:

River Terrace SE QTR 2008

Project #:

Project Manager:

Samplers

Sample Temperature:

Number/Volume

Preservative

$$\text{HgCl}_2 \mid \text{HNO}_3$$

HEAL NO.

0803096

1-Tedlar

1

Soil Vapor Field Blank

Received By: (Signature)

Received By: (Signature)

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/liquid)

TPH (Method 418.1)

ENB (Method 504.1)

FD-302 (Rev. 4-15-64)

8310 (PNA 01-PAH)

ALPHA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

82608 (VOA)

82270 (Seml-Y04)

Air Bubbles or Headspace (Y or N)

COVER LETTER

Friday, March 21, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 1st Qtr-2008-VS

Order No.: 0803097

Dear Cindy Hurtado:

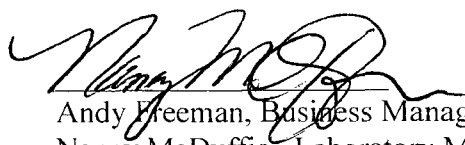
Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 3/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS
Lab Order: 0803097

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803097-01A	TP-9	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 9:55:00 AM
0803097-01A	TP-9	R27700	EPA Method 8021B: Volatiles	3/11/2008 9:55:00 AM
0803097-02A	TP-5	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 10:25:00 AM
0803097-02A	TP-5	R27700	EPA Method 8021B: Volatiles	3/11/2008 10:25:00 AM
0803097-03A	DW-1	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 10:55:00 AM
0803097-03A	DW-1	R27700	EPA Method 8021B: Volatiles	3/11/2008 10:55:00 AM
0803097-04A	MW-#49	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 11:25:00 AM
0803097-04A	MW-#49	R27700	EPA Method 8021B: Volatiles	3/11/2008 11:25:00 AM
0803097-05A	TP-10	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 1:10:00 PM
0803097-05A	TP-10	R27700	EPA Method 8021B: Volatiles	3/11/2008 1:10:00 PM
0803097-06A	TP-3	R27700	EPA Method 8015B: Gasoline Range	3/11/2008 1:30:00 PM
0803097-06A	TP-3	R27700	EPA Method 8021B: Volatiles	3/11/2008 1:30:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803097
Project: River Terrace 1st Qtr-2008-VS
Lab ID: 0803097-01

Client Sample ID: TP-9
Collection Date: 3/11/2008 9:55:00 AM
Date Received: 3/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/13/2008 1:19:24 PM
Surr: BFB	111	76.8-150		%REC	1	3/13/2008 1:19:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 1:19:24 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 1:19:24 PM
Ethylbenzene	ND	0.10		µg/L	1	3/13/2008 1:19:24 PM
Xylenes, Total	ND	0.30		µg/L	1	3/13/2008 1:19:24 PM
Surr: 4-Bromofluorobenzene	98.0	70.2-105		%REC	1	3/13/2008 1:19:24 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT:	San Juan Refining	Client Sample ID:	TP-5
Lab Order:	0803097	Collection Date:	3/11/2008 10:25:00 AM
Project:	River Terrace 1st Qtr-2008-VS	Date Received:	3/12/2008
Lab ID:	0803097-02	Matrix:	AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	55	5.0		µg/L	1	3/13/2008 1:50:08 PM
Surr: BFB	115	76.8-150		%REC	1	3/13/2008 1:50:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 1:50:08 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 1:50:08 PM
Ethylbenzene	2.6	0.10		µg/L	1	3/13/2008 1:50:08 PM
Xylenes, Total	12	0.30		µg/L	1	3/13/2008 1:50:08 PM
Surr: 4-Bromofluorobenzene	109	70.2-105	S	%REC	1	3/13/2008 1:50:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits

B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803097
Project: River Terrace 1st Qtr-2008-VS
Lab ID: 0803097-03

Client Sample ID: DW-1
Collection Date: 3/11/2008 10:55:00 AM
Date Received: 3/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/13/2008 2:51:07 PM
Surr: BFB	109	76.8-150		%REC	1	3/13/2008 2:51:07 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 2:51:07 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 2:51:07 PM
Ethylbenzene	ND	0.10		µg/L	1	3/13/2008 2:51:07 PM
Xylenes, Total	ND	0.30		µg/L	1	3/13/2008 2:51:07 PM
Surr: 4-Bromofluorobenzene	98.9	70.2-105		%REC	1	3/13/2008 2:51:07 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining**Client Sample ID:** MW-#49**Lab Order:** 0803097**Collection Date:** 3/11/2008 11:25:00 AM**Project:** River Terrace 1st Qtr-2008-VS**Date Received:** 3/12/2008**Lab ID:** 0803097-04**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/13/2008 4:53:23 PM
Surr: BFB	107	76.8-150		%REC	1	3/13/2008 4:53:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 4:53:23 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 4:53:23 PM
Ethylbenzene	ND	0.10		µg/L	1	3/13/2008 4:53:23 PM
Xylenes, Total	ND	0.30		µg/L	1	3/13/2008 4:53:23 PM
Surr: 4-Bromofluorobenzene	97.5	70.2-105		%REC	1	3/13/2008 4:53:23 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining**Client Sample ID:** TP-10**Lab Order:** 0803097**Collection Date:** 3/11/2008 1:10:00 PM**Project:** River Terrace 1st Qtr-2008-VS**Date Received:** 3/12/2008**Lab ID:** 0803097-05**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/13/2008 5:23:56 PM
Surr: BFB	111	76.8-150		%REC	1	3/13/2008 5:23:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 5:23:56 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 5:23:56 PM
Ethylbenzene	0.16	0.10		µg/L	1	3/13/2008 5:23:56 PM
Xylenes, Total	0.82	0.30		µg/L	1	3/13/2008 5:23:56 PM
Surr: 4-Bromofluorobenzene	101	70.2-105		%REC	1	3/13/2008 5:23:56 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining**Client Sample ID:** TP-3**Lab Order:** 0803097**Collection Date:** 3/11/2008 1:30:00 PM**Project:** River Terrace 1st Qtr-2008-VS**Date Received:** 3/12/2008**Lab ID:** 0803097-06**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/13/2008 5:54:10 PM
Surr: BFB	111	76.8-150		%REC	1	3/13/2008 5:54:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/13/2008 5:54:10 PM
Toluene	ND	0.10		µg/L	1	3/13/2008 5:54:10 PM
Ethylbenzene	ND	0.10		µg/L	1	3/13/2008 5:54:10 PM
Xylenes, Total	0.42	0.30		µg/L	1	3/13/2008 5:54:10 PM
Surr: 4-Bromofluorobenzene	100	70.2-105		%REC	1	3/13/2008 5:54:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 1st Qtr-2008-VS

Work Order: 0803097

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0803097-03A DUP

DUP

Batch ID: R27700 Analysis Date: 3/13/2008 3:21:28 PM

Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8	
Surr: BFB	2164	µg/L	0	108	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB

MBLK

Batch ID: R27700 Analysis Date: 3/13/2008 9:42:09 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.68	mg/L	0	103	79.2	121			

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R27700 Analysis Date: 3/13/2008 7:24:36 PM

Gasoline Range Organics (GRO)	0.4880	mg/L	0.050	97.6	80	115			
Surr: BFB	22.39	mg/L	0	112	79.2	121			

Method: EPA Method 8021B: Volatiles

Sample ID: 0803097-03A DUP

DUP

Batch ID: R27700 Analysis Date: 3/13/2008 3:21:28 PM

Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.982	µg/L	0	99.1	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R27700 Analysis Date: 3/13/2008 9:42:09 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.08	µg/L	0	95.4	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R27700 Analysis Date: 3/13/2008 6:24:20 PM

Benzene	19.57	µg/L	1.0	97.8	85.9	113			
Toluene	19.99	µg/L	1.0	100	86.4	113			
Ethylbenzene	20.09	µg/L	1.0	100	83.5	118			
Xylenes, Total	58.66	µg/L	2.0	97.1	83.4	122			
Surr: 4-Bromofluorobenzene	20.42	µg/L	0	102	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/12/2008

Work Order Number 0803097

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by

Initials

Matrix

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding

Comments:

per LH collection times on LOC are correct 3/12/08

Corrective Action

CHAIN-OF-CUSTODY RECORD

Client: SAN JUAN REFINING

(Western Refining)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂ HNO₃

HEAL No.

0803097

1

2

3

4

5

6

1-Tedlar

TP-9

TP-5

DW-1

MW#49

TP-10

TP-3

3/11/08

955A

1055A

1125A

110pm

130pm

VAPOR

TP-9

TP-5

DW-1

MW#49

TP-10

TP-3

1-Tedlar

0803097

1

2

3

4

5

6

1-Tedlar

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TP-5

DW-1

MW#49

TP-10

TP-3

1-Tedlar

0803097

1

2

3

4

5

6

1-Tedlar

TP-9

TP-5

COVER LETTER

Friday, March 21, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 1st Qtr-2008-VS

Order No.: 0803117

Dear Cindy Hurtado:

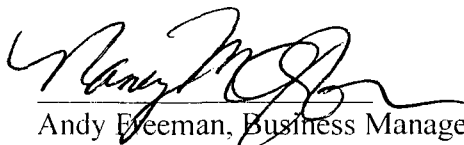
Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 3/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining
Project: River Terrace 1st Qtr-2008-VS
Lab Order: 0803117

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0803117-01A	TP-11	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 10:45:00 AM
0803117-01A	TP-11	R27719	EPA Method 8021B: Volatiles	3/12/2008 10:45:00 AM
0803117-02A	TP-13	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:00:00 AM
0803117-02A	TP-13	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:00:00 AM
0803117-03A	TP-13 FD	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:05:00 AM
0803117-03A	TP-13 FD	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:05:00 AM
0803117-04A	TP-12	R27719	EPA Method 8015B: Gasoline Range	3/12/2008 11:20:00 AM
0803117-04A	TP-12	R27719	EPA Method 8021B: Volatiles	3/12/2008 11:20:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-11

Lab Order: 0803117

Collection Date: 3/12/2008 10:45:00 AM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/13/2008

Lab ID: 0803117-01

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/14/2008 11:43:00 AM
Surr: BFB	103	76.8-150		%REC	1	3/14/2008 11:43:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/14/2008 11:43:00 AM
Toluene	ND	0.10		µg/L	1	3/14/2008 11:43:00 AM
Ethylbenzene	ND	0.10		µg/L	1	3/14/2008 11:43:00 AM
Xylenes, Total	ND	0.30		µg/L	1	3/14/2008 11:43:00 AM
Surr: 4-Bromofluorobenzene	90.7	70.2-105		%REC	1	3/14/2008 11:43:00 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-13

Lab Order: 0803117

Collection Date: 3/12/2008 11:00:00 AM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/13/2008

Lab ID: 0803117-02

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/14/2008 12:44:36 PM
Surr: BFB	107	76.8-150		%REC	1	3/14/2008 12:44:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/14/2008 12:44:36 PM
Toluene	ND	0.10		µg/L	1	3/14/2008 12:44:36 PM
Ethylbenzene	ND	0.10		µg/L	1	3/14/2008 12:44:36 PM
Xylenes, Total	ND	0.30		µg/L	1	3/14/2008 12:44:36 PM
Surr: 4-Bromofluorobenzene	95.5	70.2-105		%REC	1	3/14/2008 12:44:36 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining**Client Sample ID:** TP-13 FD**Lab Order:** 0803117**Collection Date:** 3/12/2008 11:05:00 AM**Project:** River Terrace 1st Qtr-2008-VS**Date Received:** 3/13/2008**Lab ID:** 0803117-03**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/14/2008 1:50:58 PM
Surr: BFB	109	76.8-150		%REC	1	3/14/2008 1:50:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/14/2008 1:50:58 PM
Toluene	ND	0.10		µg/L	1	3/14/2008 1:50:58 PM
Ethylbenzene	ND	0.10		µg/L	1	3/14/2008 1:50:58 PM
Xylenes, Total	ND	0.30		µg/L	1	3/14/2008 1:50:58 PM
Surr: 4-Bromofluorobenzene	96.5	70.2-105		%REC	1	3/14/2008 1:50:58 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 21-Mar-08

CLIENT: San Juan Refining

Client Sample ID: TP-12

Lab Order: 0803117

Collection Date: 3/12/2008 11:20:00 AM

Project: River Terrace 1st Qtr-2008-VS

Date Received: 3/13/2008

Lab ID: 0803117-04

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	3/14/2008 2:22:33 PM
Surr: BFB	110	76.8-150		%REC	1	3/14/2008 2:22:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	3/14/2008 2:22:33 PM
Toluene	ND	0.10		µg/L	1	3/14/2008 2:22:33 PM
Ethylbenzene	ND	0.10		µg/L	1	3/14/2008 2:22:33 PM
Xylenes, Total	ND	0.30		µg/L	1	3/14/2008 2:22:33 PM
Surr: 4-Bromofluorobenzene	98.6	70.2-105		%REC	1	3/14/2008 2:22:33 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 1st Qtr-2008-VS

Work Order: 0803117

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0803117-01A DUP		DUP							
					Batch ID: R27719		Analysis Date: 3/14/2008 12:13:40 PM		
Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8	
Surr: BFB	2079	µg/L	0	104	76.8	150	0	0	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		MBLK							
					Batch ID: R27719		Analysis Date: 3/14/2008 9:08:04 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	21.38	mg/L	0	107	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS							
					Batch ID: R27719		Analysis Date: 3/14/2008 4:07:37 PM		
Gasoline Range Organics (GRO)	0.4820	mg/L	0.050	96.4	80	115			
Surr: BFB	22.49	mg/L	0	112	79.2	121			
Method: EPA Method 8021B: Volatiles									
Sample ID: 0803117-01A DUP		DUP							
					Batch ID: R27719		Analysis Date: 3/14/2008 12:13:40 PM		
Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.849	µg/L	0	92.4	70.2	105	0	0	
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		MBLK							
					Batch ID: R27719		Analysis Date: 3/14/2008 9:08:04 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.43	µg/L	0	97.1	68.9	122			
Sample ID: 100NG BTEX LCS		LCS							
					Batch ID: R27719		Analysis Date: 3/14/2008 3:05:49 PM		
Benzene	19.30	µg/L	1.0	96.5	85.9	113			
Toluene	19.57	µg/L	1.0	96.5	86.4	113			
Ethylbenzene	20.10	µg/L	1.0	101	83.5	118			
Xylenes, Total	58.66	µg/L	2.0	97.1	83.4	122			
Surr: 4-Bromofluorobenzene	20.26	µg/L	0	101	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/13/2008

Work Order Number 0803117

Received by: ARS

Checklist completed by:

Signature

3/13/08

Date

Sample ID labels checked by

Initials

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 2nd QTR 2008

Order No.: 0805194

Dear Cindy Hurtado:

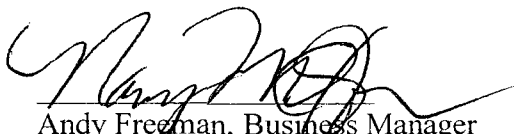
Hall Environmental Analysis Laboratory, Inc. received 14 sample(s) on 5/14/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,


Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Project: River Terrace 2nd QTR 2008
Lab Order: 0805194

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805194-01A	TP-1	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 11:00:00 AM
0805194-01A	TP-1	R28548	EPA Method 8021B: Volatiles	5/13/2008 11:00:00 AM
0805194-02A	TP-2	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:25:00 AM
0805194-02A	TP-2	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:25:00 AM
0805194-03A	TP-3	R28548	EPA Method 8021B: Volatiles	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8021B: Volatiles	5/13/2008 1:20:00 PM
0805194-03A	TP-3	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 1:20:00 PM
0805194-04A	TP-5	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:35:00 AM
0805194-04A	TP-5	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:35:00 AM
0805194-05A	TP-6	R28548	EPA Method 8021B: Volatiles	5/13/2008 11:05:00 AM
0805194-05A	TP-6	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 11:05:00 AM
0805194-06A	TP-7	R28548	EPA Method 8015B: Gasoline Range	5/13/2008 10:45:00 AM
0805194-06A	TP-7	R28548	EPA Method 8021B: Volatiles	5/13/2008 10:45:00 AM
0805194-07A	TP-8	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 10:55:00 AM
0805194-07A	TP-8	R28564	EPA Method 8021B: Volatiles	5/13/2008 10:55:00 AM
0805194-08A	TP-9	R28564	EPA Method 8021B: Volatiles	5/13/2008 10:40:00 AM
0805194-08A	TP-9	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 10:40:00 AM
0805194-09A	TP-10	R28564	EPA Method 8021B: Volatiles	5/13/2008 12:40:00 PM
0805194-09A	TP-10	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 12:40:00 PM
0805194-10A	TP-11	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 12:45:00 PM
0805194-10A	TP-11	R28564	EPA Method 8021B: Volatiles	5/13/2008 12:45:00 PM
0805194-11A	TP-12	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:00:00 PM
0805194-11A	TP-12	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:00:00 PM
0805194-12A	TP-13	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:10:00 PM
0805194-12A	TP-13	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:10:00 PM
0805194-13A	MW-49	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:45:00 PM
0805194-13A	MW-49	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:45:00 PM
0805194-14A	DW-1	R28564	EPA Method 8015B: Gasoline Range	5/13/2008 1:40:00 PM
0805194-14A	DW-1	R28564	EPA Method 8021B: Volatiles	5/13/2008 1:40:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-1

Lab Order: 0805194

Collection Date: 5/13/2008 11:00:00 AM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-01

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	15	5.0		µg/L	1	5/15/2008 12:28:13 PM
Surr: BFB	109	76.8-150		%REC	1	5/15/2008 12:28:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.40	0.10		µg/L	1	5/15/2008 12:28:13 PM
Toluene	ND	0.10		µg/L	1	5/15/2008 12:28:13 PM
Ethylbenzene	0.42	0.10		µg/L	1	5/15/2008 12:28:13 PM
Xylenes, Total	1.4	0.30		µg/L	1	5/15/2008 12:28:13 PM
Surr: 4-Bromofluorobenzene	88.8	70.2-105		%REC	1	5/15/2008 12:28:13 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-2

Lab Order: 0805194

Collection Date: 5/13/2008 10:25:00 AM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-02

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	310	50		µg/L	10	5/15/2008 3:02:42 PM
Surr: BFB	107	76.8-150		%REC	10	5/15/2008 3:02:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	2.8	1.0		µg/L	10	5/15/2008 3:02:42 PM
Toluene	ND	1.0		µg/L	10	5/15/2008 3:02:42 PM
Ethylbenzene	7.1	1.0		µg/L	10	5/15/2008 3:02:42 PM
Xylenes, Total	34	0.30		µg/L	10	5/15/2008 3:02:42 PM
Surr: 4-Bromofluorobenzene	94.4	70.2-105		%REC	10	5/15/2008 3:02:42 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-3

Lab Order: 0805194

Collection Date: 5/13/2008 1:20:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-03

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/15/2008 1:30:31 PM
Surr: BFB	107	76.8-150		%REC	1	5/15/2008 1:30:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/15/2008 1:30:31 PM
Toluene	ND	0.10		µg/L	1	5/15/2008 1:30:31 PM
Ethylbenzene	0.15	0.10		µg/L	1	5/15/2008 1:30:31 PM
Xylenes, Total	0.52	0.30		µg/L	1	5/15/2008 1:30:31 PM
Surr: 4-Bromofluorobenzene	92.6	70.2-105		%REC	1	5/15/2008 1:30:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-5

Lab Order: 0805194

Collection Date: 5/13/2008 10:35:00 AM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-04

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	31	5.0		µg/L	1	5/15/2008 2:01:34 PM
Surr: BFB	110	76.8-150		%REC	1	5/15/2008 2:01:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.11	0.10		µg/L	1	5/15/2008 2:01:34 PM
Toluene	ND	0.10		µg/L	1	5/15/2008 2:01:34 PM
Ethylbenzene	1.6	0.10		µg/L	1	5/15/2008 2:01:34 PM
Xylenes, Total	8.8	0.30		µg/L	1	5/15/2008 2:01:34 PM
Surr: 4-Bromofluorobenzene	99.5	70.2-105		%REC	1	5/15/2008 2:01:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805194
Project: River Terrace 2nd QTR 2008
Lab ID: 0805194-05

Client Sample ID: TP-6
Collection Date: 5/13/2008 11:05:00 AM
Date Received: 5/14/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	7.6	5.0		µg/L	1	5/15/2008 3:33:16 PM
Surr: BFB	110	76.8-150		%REC	1	5/15/2008 3:33:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.17	0.10		µg/L	1	5/15/2008 3:33:16 PM
Toluene	ND	0.10		µg/L	1	5/15/2008 3:33:16 PM
Ethylbenzene	0.34	0.10		µg/L	1	5/15/2008 3:33:16 PM
Xylenes, Total	1.1	0.30		µg/L	1	5/15/2008 3:33:16 PM
Surr: 4-Bromofluorobenzene	94.1	70.2-105		%REC	1	5/15/2008 3:33:16 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805194
Project: River Terrace 2nd QTR 2008
Lab ID: 0805194-06

Client Sample ID: TP-7
Collection Date: 5/13/2008 10:45:00 AM
Date Received: 5/14/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	6.2	5.0		µg/L	1	5/15/2008 4:03:59 PM
Surr: BFB	110	76.8-150		%REC	1	5/15/2008 4:03:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/15/2008 4:03:59 PM
Toluene	ND	0.10		µg/L	1	5/15/2008 4:03:59 PM
Ethylbenzene	0.38	0.10		µg/L	1	5/15/2008 4:03:59 PM
Xylenes, Total	1.5	0.30		µg/L	1	5/15/2008 4:03:59 PM
Surr: 4-Bromofluorobenzene	97.2	70.2-105		%REC	1	5/15/2008 4:03:59 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining**Client Sample ID:** TP-8**Lab Order:** 0805194**Collection Date:** 5/13/2008 10:55:00 AM**Project:** River Terrace 2nd QTR 2008**Date Received:** 5/14/2008**Lab ID:** 0805194-07**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	22	5.0		µg/L	1	5/16/2008 11:20:56 AM
Surr: BFB	126	76.8-150		%REC	1	5/16/2008 11:20:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 11:20:56 AM
Toluene	ND	0.10		µg/L	1	5/16/2008 11:20:56 AM
Ethylbenzene	0.48	0.10		µg/L	1	5/16/2008 11:20:56 AM
Xylenes, Total	2.0	0.30		µg/L	1	5/16/2008 11:20:56 AM
Surr: 4-Bromofluorobenzene	95.7	70.2-105		%REC	1	5/16/2008 11:20:56 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805194
Project: River Terrace 2nd QTR 2008
Lab ID: 0805194-08

Client Sample ID: TP-9
Collection Date: 5/13/2008 10:40:00 AM
Date Received: 5/14/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	8.8	5.0		µg/L	1	5/16/2008 11:52:11 AM
Surr: BFB	102	76.8-150		%REC	1	5/16/2008 11:52:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 11:52:11 AM
Toluene	ND	0.10		µg/L	1	5/16/2008 11:52:11 AM
Ethylbenzene	0.55	0.10		µg/L	1	5/16/2008 11:52:11 AM
Xylenes, Total	2.1	0.30		µg/L	1	5/16/2008 11:52:11 AM
Surr: 4-Bromofluorobenzene	90.6	70.2-105		%REC	1	5/16/2008 11:52:11 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805194
Project: River Terrace 2nd QTR 2008
Lab ID: 0805194-09

Client Sample ID: TP-10
Collection Date: 5/13/2008 12:40:00 PM
Date Received: 5/14/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 12:22:48 PM
Surr: BFB	105	76.8-150		%REC	1	5/16/2008 12:22:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 12:22:48 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 12:22:48 PM
Ethylbenzene	0.27	0.10		µg/L	1	5/16/2008 12:22:48 PM
Xylenes, Total	0.82	0.30		µg/L	1	5/16/2008 12:22:48 PM
Surr: 4-Bromofluorobenzene	88.9	70.2-105		%REC	1	5/16/2008 12:22:48 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805194
Project: River Terrace 2nd QTR 2008
Lab ID: 0805194-10

Client Sample ID: TP-11
Collection Date: 5/13/2008 12:45:00 PM
Date Received: 5/14/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 12:53:09 PM
Surr: BFB	107	76.8-150		%REC	1	5/16/2008 12:53:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 12:53:09 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 12:53:09 PM
Ethylbenzene	0.20	0.10		µg/L	1	5/16/2008 12:53:09 PM
Xylenes, Total	0.64	0.30		µg/L	1	5/16/2008 12:53:09 PM
Surr: 4-Bromofluorobenzene	92.3	70.2-105		%REC	1	5/16/2008 12:53:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-12

Lab Order: 0805194

Collection Date: 5/13/2008 1:00:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-11

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 1:23:29 PM
Surr: BFB	107	76.8-150		%REC	1	5/16/2008 1:23:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 1:23:29 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 1:23:29 PM
Ethylbenzene	0.17	0.10		µg/L	1	5/16/2008 1:23:29 PM
Xylenes, Total	0.56	0.30		µg/L	1	5/16/2008 1:23:29 PM
Surr: 4-Bromofluorobenzene	91.4	70.2-105		%REC	1	5/16/2008 1:23:29 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: TP-13

Lab Order: 0805194

Collection Date: 5/13/2008 1:10:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-12

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 1:53:57 PM
Surr: BFB	107	76.8-150		%REC	1	5/16/2008 1:53:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 1:53:57 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 1:53:57 PM
Ethylbenzene	0.17	0.10		µg/L	1	5/16/2008 1:53:57 PM
Xylenes, Total	0.54	0.30		µg/L	1	5/16/2008 1:53:57 PM
Surr: 4-Bromofluorobenzene	93.3	70.2-105		%REC	1	5/16/2008 1:53:57 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining**Client Sample ID:** MW-49**Lab Order:** 0805194**Collection Date:** 5/13/2008 1:45:00 PM**Project:** River Terrace 2nd QTR 2008**Date Received:** 5/14/2008**Lab ID:** 0805194-13**Matrix:** AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 2:26:06 PM
Surr: BFB	104	76.8-150		%REC	1	5/16/2008 2:26:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 2:26:06 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 2:26:06 PM
Ethylbenzene	ND	0.10		µg/L	1	5/16/2008 2:26:06 PM
Xylenes, Total	ND	0.30		µg/L	1	5/16/2008 2:26:06 PM
Surr: 4-Bromofluorobenzene	90.9	70.2-105		%REC	1	5/16/2008 2:26:06 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining

Client Sample ID: DW-1

Lab Order: 0805194

Collection Date: 5/13/2008 1:40:00 PM

Project: River Terrace 2nd QTR 2008

Date Received: 5/14/2008

Lab ID: 0805194-14

Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	5/16/2008 3:01:27 PM
Surr: BFB	109	76.8-150		%REC	1	5/16/2008 3:01:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/16/2008 3:01:27 PM
Toluene	ND	0.10		µg/L	1	5/16/2008 3:01:27 PM
Ethylbenzene	0.12	0.10		µg/L	1	5/16/2008 3:01:27 PM
Xylenes, Total	0.42	0.30		µg/L	1	5/16/2008 3:01:27 PM
Surr: 4-Bromofluorobenzene	93.8	70.2-105		%REC	1	5/16/2008 3:01:27 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 2nd QTR 2008

Work Order: 0805194

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0805194-06A DUP		DUP							
					Batch ID: R28548		Analysis Date: 5/15/2008 4:34:38 PM		
Gasoline Range Organics (GRO)	5.800	µg/L	5.0				6.67	27.8	
Surr: BFB	2200	µg/L	0	110	76.8	150	0	0	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: b 4		MBLK							
					Batch ID: R28548		Analysis Date: 5/15/2008 10:14:12 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.48	mg/L	0	102	79.2	121			
Sample ID: 2.5UG GRO LCS		LCS							
					Batch ID: R28548		Analysis Date: 5/15/2008 5:35:42 PM		
Gasoline Range Organics (GRO)	0.5200	mg/L	0.050	104	80	115			
Surr: BFB	21.95	mg/L	0	110	79.2	121			
Method: EPA Method 8021B: Volatiles									
Sample ID: 0805194-06A DUP		DUP							
					Batch ID: R28548		Analysis Date: 5/15/2008 4:34:38 PM		
Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	0.3772	µg/L	0.10				1.32	25	
Xylenes, Total	1.433	µg/L	0				2.21	25	
Surr: 4-Bromofluorobenzene	1.949	µg/L	0	97.5	70.2	105	0	0	
Method: EPA Method 8021B: Volatiles									
Sample ID: b 4		MBLK							
					Batch ID: R28548		Analysis Date: 5/15/2008 10:14:12 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Surr: 4-Bromofluorobenzene	17.52	µg/L	0	87.6	68.9	122			
Sample ID: 100NG BTEX LCS		LCS							
					Batch ID: R28548		Analysis Date: 5/15/2008 5:05:16 PM		
Benzene	18.54	µg/L	1.0	92.7	85.9	113			
Toluene	18.72	µg/L	1.0	93.6	86.4	113			
Ethylbenzene	19.14	µg/L	1.0	95.7	83.5	118			
Xylenes, Total	56.12	µg/L	2.0	92.9	83.4	122			
1,2,4-Trimethylbenzene	19.67	µg/L	1.0	98.3	83.5	115			
1,3,5-Trimethylbenzene	18.79	µg/L	1.0	93.9	85.2	113			
Surr: 4-Bromofluorobenzene	19.06	µg/L	0	95.3	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: River Terrace 2nd QTR 2008

Work Order: 0805194

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0805194-13A DUP	DUP								
Batch ID: R28564	Analysis Date: 5/16/2008 3:32:17 PM								
Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8	
Surr: BFB	2148	µg/L	0	107	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB	MBLK								
Batch ID: R28564	Analysis Date: 5/16/2008 8:47:45 AM								
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	19.94	mg/L	0	99.7	79.2	121			
Sample ID: 2.5UG GRO LCS	LCS								
Batch ID: R28564	Analysis Date: 5/16/2008 4:02:52 PM								
Gasoline Range Organics (GRO)	0.5060	mg/L	0.050	101	80	115			
Surr: BFB	22.18	mg/L	0	111	79.2	121			

Method: EPA Method 8021B: Volatiles

Sample ID: 0805194-13A DUP	DUP								
Batch ID: R28564	Analysis Date: 5/16/2008 3:32:17 PM								
Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.878	µg/L	0	93.9	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB	MBLK								
Batch ID: R28564	Analysis Date: 5/16/2008 8:47:45 AM								
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Surr: 4-Bromofluorobenzene	17.74	µg/L	0	88.7	68.9	122			
Sample ID: 100NG BTEX LCS	LCS								
Batch ID: R28564	Analysis Date: 5/15/2008 5:05:16 PM								
Benzene	18.54	µg/L	1.0	92.7	85.9	113			
Toluene	18.72	µg/L	1.0	93.6	86.4	113			
Ethylbenzene	19.14	µg/L	1.0	95.7	83.5	118			
Xylenes, Total	56.12	µg/L	2.0	92.9	83.4	122			
1,2,4-Trimethylbenzene	19.67	µg/L	1.0	98.3	83.5	115			
1,3,5-Trimethylbenzene	18.79	µg/L	1.0	93.9	85.2	113			
Surr: 4-Bromofluorobenzene	19.06	µg/L	0	95.3	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

5/14/2008

Work Order Number 0805194

Received by: TLS

Checklist completed by:

Jamyo Shomin
Signature

5/14/08
Date

Sample ID labels checked by:

TS
Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: Western Refining (Bimf)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

QA/QC Package:

Std ☐ Level 4 ☒

Other:

Project Name:

River Terrace 2nd QTR 2008

Project #:

Project Manager:

Sampler: Bob

Sample Temperature:

Number/Volume

Preservative

HgCl₂ HNO₃

HEAL No.

0805194

1

2

3

4

5

6

7

Sample I.D. No.

TP-1

TP-2

TP-3

TP-5

TP-6

TP-7

TP-8

Matrix

VAPOR

Time

11:00

10:35

1:30

10:35

11:05

10:45

10:55

Date

5-13-08

Date:

5-13-08

Date:

Relinquished By: (Signature)

Robert K. Kahan

Relinquished By: (Signature)

Received By: (Signature)

Imy Shamin

Received By: (Signature)

5/14/08

1006

Remarks:

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)

☒

BTEX + MTBE + TPH (8021)

☒

TPH Method 8015B (Gas/Direct)

☒

TPH (Method 418.1)

☒

EDC (Method 8021)

☒

8310 (PNA or PAH)

☒

RCRA 8 Metals

☒

Anions (F⁻, Cl⁻, NO₃⁻, PO₄³⁻, SO₄²⁻)

☒

8081 Pesticides / PCB's (8082)

☒

8260B (VOA)

☒

8270 (Semi-VOA)

☒

Air Bubbles or Headspace (Y or N)

☒

COVER LETTER

Thursday, May 29, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: River Terrace 2nd Qtr-2008

Order No.: 0805240

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 5/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Project: River Terrace 2nd Qtr-2008
Lab Order: 0805240

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805240-01A	TP-2 Dup	R28611	EPA Method 8015B: Gasoline Range	5/15/2008 12:05:00 PM
0805240-01A	TP-2 Dup	R28611	EPA Method 8021B: Volatiles	5/15/2008 12:05:00 PM
0805240-02A	Field Blank	R28611	EPA Method 8015B: Gasoline Range	5/15/2008 12:40:00 PM
0805240-02A	Field Blank	R28611	EPA Method 8021B: Volatiles	5/15/2008 12:40:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805240
Project: River Terrace 2nd Qtr-2008
Lab ID: 0805240-01

Client Sample ID: TP-2 Dup
Collection Date: 5/15/2008 12:05:00 PM
Date Received: 5/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	120	5.0		µg/L	1	5/20/2008 11:58:33 AM
Surr: BFB	97.7	76.8-150		%REC	1	5/20/2008 11:58:33 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.32	0.10		µg/L	1	5/20/2008 11:58:33 AM
Toluene	0.23	0.10		µg/L	1	5/20/2008 11:58:33 AM
Ethylbenzene	0.16	0.10		µg/L	1	5/20/2008 11:58:33 AM
Xylenes, Total	4.5	0.30		µg/L	1	5/20/2008 11:58:33 AM
Surr: 4-Bromofluorobenzene	83.7	70.2-105		%REC	1	5/20/2008 11:58:33 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 29-May-08

CLIENT: San Juan Refining
Lab Order: 0805240
Project: River Terrace 2nd Qtr-2008
Lab ID: 0805240-02

Client Sample ID: Field Blank
Collection Date: 5/15/2008 12:40:00 PM
Date Received: 5/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	8.6	5.0		µg/L	1	5/20/2008 12:59:58 PM
Surr: BFB	102	76.8-150		%REC	1	5/20/2008 12:59:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	5/20/2008 12:59:58 PM
Toluene	ND	0.10		µg/L	1	5/20/2008 12:59:58 PM
Ethylbenzene	ND	0.10		µg/L	1	5/20/2008 12:59:58 PM
Xylenes, Total	0.94	0.30		µg/L	1	5/20/2008 12:59:58 PM
Surr: 4-Bromofluorobenzene	83.6	70.2-105		%REC	1	5/20/2008 12:59:58 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
 Project: River Terrace 2nd Qtr-2008

Work Order: 0805240

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0805240-01A DUP

DUP

Batch ID: R28611

Analysis Date: 5/20/2008 12:29:20 PM

Gasoline Range Organics (GRO)	109.2	µg/L	5.0				12.7	27.8	
Surr: BFB	2159	µg/L	0	108	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB

MBLK

Batch ID: R28611

Analysis Date: 5/20/2008 8:24:10 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	20.50	mg/L	0	103	79.2	121			

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R28611

Analysis Date: 5/20/2008 10:25:57 AM

Gasoline Range Organics (GRO)	0.4920	mg/L	0.050	98.4	80	115			
Surr: BFB	22.67	mg/L	0	113	79.2	121			

Method: EPA Method 8021B: Volatiles

Sample ID: 0805240-01A DUP

DUP

Batch ID: R28611

Analysis Date: 5/20/2008 12:29:20 PM

Benzene	0.2854	µg/L	0.10				9.86	25	
Toluene	0.2076	µg/L	0.10				11.6	25	
Ethylbenzene	0.1432	µg/L	0.10				9.95	25	
Xylenes, Total	4.169	µg/L	0.30				7.41	25	
Surr: 4-Bromofluorobenzene	1.878	µg/L	0	93.9	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R28611

Analysis Date: 5/20/2008 8:24:10 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.54	µg/L	0	87.7	68.9	122			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R28611

Analysis Date: 5/20/2008 10:56:15 AM

Benzene	19.05	µg/L	1.0	95.3	85.9	113			
Toluene	19.05	µg/L	1.0	95.3	86.4	113			
Ethylbenzene	19.35	µg/L	1.0	96.7	83.5	118			
Xylenes, Total	56.95	µg/L	2.0	94.3	83.4	122			
Surr: 4-Bromofluorobenzene	18.71	µg/L	0	93.6	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

5/16/2008

Work Order Number 0805240

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Other:

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 605-632-4161

Fax #: 505-632-3911

Date _____ Time _____

Matrix

Sample I.D. No.:

Number/Volume

Preservative

$$\text{HgCl}_2 \quad \text{HNO}_3$$
 HNO_3

HEAL No.

0805240

5-15-08	12:05	VAPOR	TP-2	Dup	Ted/AR
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5-15-08	12:40	1400r	field Blank	Ted/AR
---------	-------	-------	-------------	--------

Date:	Time:
-------	-------

5-15-08 1:00

Redelivered By: (Signature)

[Signature]

Received By: (Signature)

	80	91	56	08
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Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

QA/QC Package:

Std

Level 4 ☒

ANALYSIS REQUEST

~~BTEX + MTBE + TPH (8021)~~
BTEX + MTBE + TPH (Gasoline Only)

TPH Method 8015B (Gas/B-Pass)

TPH (Method 418.1)

FD-302 (Rev. 5-22-64)

EDB (Method 8071)

EDC (N-ethyl-3-(3-dimethylaminopropyl) carbodiimide)

8310 (PNA of PAH)

RCRA 8 Metals

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Sem-VOA)

115

Air Bubbles or Headspace (Y or N)



COVER LETTER

Monday, July 28, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 3rd Qtr-2008-VS

Order No.: 0807199

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 3rd Qtr-2008-VS
Lab Order: 0807199

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807199-01A	TP-#2	R29415	EPA Method 8021B: Volatiles	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 7:45:00 AM
0807199-01A	TP-#2	R29415	EPA Method 8021B: Volatiles	7/15/2008 7:45:00 AM
0807199-02A	TP-#1	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:00:00 AM
0807199-02A	TP-#1	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:00:00 AM
0807199-03A	TP-#6	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:15:00 AM
0807199-03A	TP-#6	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:15:00 AM
0807199-04A	TP-#8	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:25:00 AM
0807199-04A	TP-#8	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:25:00 AM
0807199-05A	TP-#8FD	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:30:00 AM
0807199-05A	TP-#8FD	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:30:00 AM
0807199-06A	TP-#7	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 8:45:00 AM
0807199-06A	TP-#7	R29415	EPA Method 8021B: Volatiles	7/15/2008 8:45:00 AM
0807199-07A	TP-#9	R29415	EPA Method 8021B: Volatiles	7/15/2008 9:05:00 AM
0807199-07A	TP-#9	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 9:05:00 AM
0807199-08A	TP-#5	R29415	EPA Method 8021B: Volatiles	7/15/2008 9:25:00 AM
0807199-08A	TP-#5	R29415	EPA Method 8015B: Gasoline Range	7/15/2008 9:25:00 AM
0807199-09A	DW-#1	R29433	EPA Method 8021B: Volatiles	7/15/2008 9:40:00 AM
0807199-09A	DW-#1	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 9:40:00 AM
0807199-10A	MW-#49	R29433	EPA Method 8021B: Volatiles	7/15/2008 9:50:00 AM
0807199-10A	MW-#49	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 9:50:00 AM
0807199-11A	Field Blank-Batt	R29433	EPA Method 8015B: Gasoline Range	7/15/2008 10:35:00 AM
0807199-11A	Field Blank-Batt	R29433	EPA Method 8021B: Volatiles	7/15/2008 10:35:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 3rd Qtr-2008-VS
Lab Order: 0807199

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-01

Client Sample ID: TP-#2
Collection Date: 7/15/2008 7:45:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	410	25		µg/L	5	7/21/2008 11:20:19 AM
Surr: BFB	172	76.8-150	S	%REC	5	7/21/2008 11:20:19 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.50		µg/L	5	7/21/2008 11:20:19 AM
Toluene	0.78	0.50		µg/L	5	7/21/2008 11:20:19 AM
Ethylbenzene	1.2	0.50		µg/L	5	7/21/2008 11:20:19 AM
Xylenes, Total	47	1.5		µg/L	5	7/21/2008 11:20:19 AM
Surr: 4-Bromofluorobenzene	116	70.2-105	S	%REC	5	7/21/2008 11:20:19 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-02

Client Sample ID: TP-#1
Collection Date: 7/15/2008 8:00:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	48	5.0		µg/L	1	7/21/2008 10:49:44 AM
Surr: BFB	180	76.8-150	S	%REC	1	7/21/2008 10:49:44 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	0.16	0.10		µg/L	1	7/21/2008 10:49:44 AM
Toluene	0.19	0.10		µg/L	1	7/21/2008 10:49:44 AM
Ethylbenzene	0.17	0.10		µg/L	1	7/21/2008 10:49:44 AM
Xylenes, Total	6.3	0.30		µg/L	1	7/21/2008 10:49:44 AM
Surr: 4-Bromofluorobenzene	118	70.2-105	S	%REC	1	7/21/2008 10:49:44 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-03

Client Sample ID: TP-#6
Collection Date: 7/15/2008 8:15:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	26	5.0		µg/L	1	7/21/2008 12:21:27 PM
Surr: BFB	143	76.8-150		%REC	1	7/21/2008 12:21:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 12:21:27 PM
Toluene	0.13	0.10		µg/L	1	7/21/2008 12:21:27 PM
Ethylbenzene	ND	0.10		µg/L	1	7/21/2008 12:21:27 PM
Xylenes, Total	3.8	0.30		µg/L	1	7/21/2008 12:21:27 PM
Surr: 4-Bromofluorobenzene	112	70.2-105	S	%REC	1	7/21/2008 12:21:27 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-04

Client Sample ID: TP-#8
Collection Date: 7/15/2008 8:25:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	17	5.0		µg/L	1	7/21/2008 12:51:47 PM
Surr: BFB	124	76.8-150		%REC	1	7/21/2008 12:51:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 12:51:47 PM
Toluene	0.12	0.10		µg/L	1	7/21/2008 12:51:47 PM
Ethylbenzene	0.11	0.10		µg/L	1	7/21/2008 12:51:47 PM
Xylenes, Total	2.0	0.30		µg/L	1	7/21/2008 12:51:47 PM
Surr: 4-Bromofluorobenzene	113	70.2-105	S	%REC	1	7/21/2008 12:51:47 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-05

Client Sample ID: TP-#8FD
Collection Date: 7/15/2008 8:30:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	19	5.0		µg/L	1	7/21/2008 1:22:33 PM
Surr: BFB	126	76.8-150		%REC	1	7/21/2008 1:22:33 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 1:22:33 PM
Toluene	0.11	0.10		µg/L	1	7/21/2008 1:22:33 PM
Ethylbenzene	0.15	0.10		µg/L	1	7/21/2008 1:22:33 PM
Xylenes, Total	2.3	0.30		µg/L	1	7/21/2008 1:22:33 PM
Surr: 4-Bromofluorobenzene	112	70.2-105	S	%REC	1	7/21/2008 1:22:33 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-06

Client Sample ID: TP-#7
Collection Date: 7/15/2008 8:45:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	17	5.0		µg/L	1	7/21/2008 1:52:58 PM
Surr: BFB	129	76.8-150		%REC	1	7/21/2008 1:52:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 1:52:58 PM
Toluene	0.12	0.10		µg/L	1	7/21/2008 1:52:58 PM
Ethylbenzene	ND	0.10		µg/L	1	7/21/2008 1:52:58 PM
Xylenes, Total	2.0	0.30		µg/L	1	7/21/2008 1:52:58 PM
Surr: 4-Bromofluorobenzene	112	70.2-105	S	%REC	1	7/21/2008 1:52:58 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-07

Client Sample ID: TP-#9
Collection Date: 7/15/2008 9:05:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	7/21/2008 2:23:31 PM
Surr: BFB	109	76.8-150		%REC	1	7/21/2008 2:23:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 2:23:31 PM
Toluene	0.13	0.10		µg/L	1	7/21/2008 2:23:31 PM
Ethylbenzene	ND	0.10		µg/L	1	7/21/2008 2:23:31 PM
Xylenes, Total	ND	0.30		µg/L	1	7/21/2008 2:23:31 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	7/21/2008 2:23:31 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-08

Client Sample ID: TP-#5
Collection Date: 7/15/2008 9:25:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	9.8	5.0		µg/L	1	7/21/2008 2:54:22 PM
Surr: BFB	112	76.8-150		%REC	1	7/21/2008 2:54:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/21/2008 2:54:22 PM
Toluene	0.12	0.10		µg/L	1	7/21/2008 2:54:22 PM
Ethylbenzene	0.45	0.10		µg/L	1	7/21/2008 2:54:22 PM
Xylenes, Total	2.9	0.30		µg/L	1	7/21/2008 2:54:22 PM
Surr: 4-Bromofluorobenzene	110	70.2-105	S	%REC	1	7/21/2008 2:54:22 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-09

Client Sample ID: DW-#1
Collection Date: 7/15/2008 9:40:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	7/22/2008 10:53:29 AM
Surr: BFB	106	76.8-150		%REC	1	7/22/2008 10:53:29 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/22/2008 10:53:29 AM
Toluene	0.11	0.10		µg/L	1	7/22/2008 10:53:29 AM
Ethylbenzene	ND	0.10		µg/L	1	7/22/2008 10:53:29 AM
Xylenes, Total	ND	0.30		µg/L	1	7/22/2008 10:53:29 AM
Surr: 4-Bromofluorobenzene	101	70.2-105		%REC	1	7/22/2008 10:53:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-10

Client Sample ID: MW-#49
Collection Date: 7/15/2008 9:50:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	7/22/2008 11:23:46 AM
Surr: BFB	106	76.8-150		%REC	1	7/22/2008 11:23:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/22/2008 11:23:46 AM
Toluene	0.11	0.10		µg/L	1	7/22/2008 11:23:46 AM
Ethylbenzene	ND	0.10		µg/L	1	7/22/2008 11:23:46 AM
Xylenes, Total	ND	0.30		µg/L	1	7/22/2008 11:23:46 AM
Surr: 4-Bromofluorobenzene	99.6	70.2-105		%REC	1	7/22/2008 11:23:46 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807199
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807199-11

Client Sample ID: Field Blank-Batt
Collection Date: 7/15/2008 10:35:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	7/22/2008 11:54:07 AM
Surr: BFB	107	76.8-150		%REC	1	7/22/2008 11:54:07 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.10		µg/L	1	7/22/2008 11:54:07 AM
Toluene	ND	0.10		µg/L	1	7/22/2008 11:54:07 AM
Ethylbenzene	ND	0.10		µg/L	1	7/22/2008 11:54:07 AM
Xylenes, Total	0.33	0.30		µg/L	1	7/22/2008 11:54:07 AM
Surr: 4-Bromofluorobenzene	105	70.2-105		%REC	1	7/22/2008 11:54:07 AM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 3rd Qtr-2008-VS

Work Order: 0807199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807199-01A DUP DUP

Batch ID: R29415 Analysis Date: 7/21/2008 11:50:39 AM

Gasoline Range Organics (GRO) 436.0 µg/L 25 7.13 27.8

Surr: BFB 17970 µg/L 0 180 76.8 150 0 0 S

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB MBLK

Batch ID: R29415 Analysis Date: 7/21/2008 9:40:18 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Surr: BFB 19.79 mg/L 0 98.9 79.2 121

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R29415 Analysis Date: 7/21/2008 3:25:39 PM

Gasoline Range Organics (GRO) 0.4900 mg/L 0.050 98.0 80 115

Surr: BFB 22.57 mg/L 0 113 79.2 121

Method: EPA Method 8021B: Volatiles

Sample ID: 0807199-01A DUP DUP

Batch ID: R29415 Analysis Date: 7/21/2008 11:50:39 AM

Benzene ND µg/L 0.50 0 25

Toluene 0.8150 µg/L 0.50 3.75 25

Ethylbenzene 1.428 µg/L 0.50 13.6 25

Xylenes, Total 49.22 µg/L 1.5 4.39 25

Surr: 4-Bromofluorobenzene 11.79 µg/L 0 118 70.2 105 0 0 S

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB MBLK

Batch ID: R29415 Analysis Date: 7/21/2008 9:40:18 AM

Benzene ND µg/L 1.0

Toluene ND µg/L 1.0

Ethylbenzene ND µg/L 1.0

Xylenes, Total ND µg/L 2.0

Surr: 4-Bromofluorobenzene 18.95 µg/L 0 94.8 68.9 122

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R29415 Analysis Date: 7/21/2008 4:57:00 PM

Benzene 21.43 µg/L 1.0 107 85.9 113

Toluene 22.10 µg/L 1.0 110 86.4 113

Ethylbenzene 22.33 µg/L 1.0 112 83.5 118

Xylenes, Total 63.63 µg/L 2.0 104 83.4 122

Surr: 4-Bromofluorobenzene 21.47 µg/L 0 107 68.9 122

Qualifiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 3rd Qtr-2008-VS

Work Order: 0807199

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807199-09A DUP

Batch ID: R29433 Analysis Date: 7/22/2008 1:02:22 PM

Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8
Surr: BFB	2122	µg/L	0	106	76.8	150	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB

Batch ID: R29433 Analysis Date: 7/22/2008 10:17:39 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.27	mg/L	0	101	79.2	121		

Sample ID: 2.5UG GRO LCS

Batch ID: R29433 Analysis Date: 7/22/2008 4:07:37 PM

Gasoline Range Organics (GRO)	0.4840	mg/L	0.050	96.8	80	115		
Surr: BFB	22.39	mg/L	0	112	79.2	121		

Method: EPA Method 8021B: Volatiles

Sample ID: 0807199-09A DUP

Batch ID: R29433 Analysis Date: 7/22/2008 1:02:22 PM

Benzene	ND	µg/L	0.10				0	25
Toluene	0.1070	µg/L	0.10				7.03	25
Ethylbenzene	ND	µg/L	0.10				0	25
Xylenes, Total	ND	µg/L	0.30				0	25
Surr: 4-Bromofluorobenzene	2.030	µg/L	0	102	70.2	105	0	0

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

Batch ID: R29433 Analysis Date: 7/22/2008 10:17:39 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	19.24	µg/L	0	96.2	68.9	122		

Sample ID: 100NG BTEX LCS

Batch ID: R29433 Analysis Date: 7/22/2008 5:39:27 PM

Benzene	21.25	µg/L	1.0	106	85.9	113		
Toluene	22.13	µg/L	1.0	111	86.4	113		
Ethylbenzene	22.05	µg/L	1.0	110	83.5	118		
Xylenes, Total	63.21	µg/L	2.0	105	83.4	122		
Surr: 4-Bromofluorobenzene	21.94	µg/L	0	110	68.9	122		

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

7/16/2008

Work Order Number 0807199

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

COVER LETTER

Tuesday, August 05, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 3rd Qtr-2008-VS

Order No.: 0807198

Dear Cindy Hurtado:

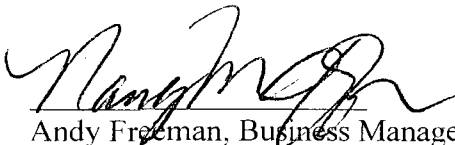
Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 7/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 3rd Qtr-2008-VS
Lab Order: 0807198

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807198-01A	TP-13	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 9:30:00 AM
0807198-01A	TP-13	R29385	EPA Method 8021B: Volatiles	7/15/2008 9:30:00 AM
0807198-02A	TP-12	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 9:45:00 AM
0807198-02A	TP-12	R29385	EPA Method 8021B: Volatiles	7/15/2008 9:45:00 AM
0807198-03A	TP-11	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:00:00 AM
0807198-03A	TP-11	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:00:00 AM
0807198-04A	TP-10	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:15:00 AM
0807198-04A	TP-10	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:15:00 AM
0807198-05A	TP-3	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:30:00 AM
0807198-05A	TP-3	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:30:00 AM
0807198-06A	Field Blank-Electric	R29385	EPA Method 8015B: Gasoline Range	7/15/2008 10:40:00 AM
0807198-06A	Field Blank-Electric	R29385	EPA Method 8021B: Volatiles	7/15/2008 10:40:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.

Project: River Terrace 3rd Qtr-2008-VS

Lab Order: 0807198

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-01

Client Sample ID: TP-13
Collection Date: 7/15/2008 9:30:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	11	5.0		µg/L	1	7/17/2008 12:11:59 PM
Surr: BFB	115	76.8-150		%REC	1	7/17/2008 12:11:59 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 12:11:59 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 12:11:59 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 12:11:59 PM
Xylenes, Total	1.4	0.30		µg/L	1	7/17/2008 12:11:59 PM
Surr: 4-Bromofluorobenzene	104	70.2-105		%REC	1	7/17/2008 12:11:59 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-02

Client Sample ID: TP-12
Collection Date: 7/15/2008 9:45:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	8.2	5.0		µg/L	1	7/17/2008 1:12:54 PM
Surr: BFB	115	76.8-150		%REC	1	7/17/2008 1:12:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 1:12:54 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 1:12:54 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 1:12:54 PM
Xylenes, Total	0.77	0.30		µg/L	1	7/17/2008 1:12:54 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	7/17/2008 1:12:54 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-03

Client Sample ID: TP-11
Collection Date: 7/15/2008 10:00:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	8.0	5.0		µg/L	1	7/17/2008 2:16:51 PM
Surr: BFB	113	76.8-150		%REC	1	7/17/2008 2:16:51 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 2:16:51 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 2:16:51 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 2:16:51 PM
Xylenes, Total	0.74	0.30		µg/L	1	7/17/2008 2:16:51 PM
Surr: 4-Bromofluorobenzene	106	70.2-105	S	%REC	1	7/17/2008 2:16:51 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-04

Client Sample ID: TP-10
Collection Date: 7/15/2008 10:15:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	7.6	5.0		µg/L	1	7/17/2008 2:47:26 PM
Surr: BFB	118	76.8-150		%REC	1	7/17/2008 2:47:26 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 2:47:26 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 2:47:26 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 2:47:26 PM
Xylenes, Total	0.75	0.30		µg/L	1	7/17/2008 2:47:26 PM
Surr: 4-Bromofluorobenzene	111	70.2-105	S	%REC	1	7/17/2008 2:47:26 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-05

Client Sample ID: TP-3
Collection Date: 7/15/2008 10:30:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	5.6	5.0		µg/L	1	7/17/2008 3:18:16 PM
Surr: BFB	116	76.8-150		%REC	1	7/17/2008 3:18:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 3:18:16 PM
Xylenes, Total	0.55	0.30		µg/L	1	7/17/2008 3:18:16 PM
Surr: 4-Bromofluorobenzene	109	70.2-105	S	%REC	1	7/17/2008 3:18:16 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Aug-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807198
Project: River Terrace 3rd Qtr-2008-VS
Lab ID: 0807198-06

Client Sample ID: Field Blank-Electric
Collection Date: 7/15/2008 10:40:00 AM
Date Received: 7/16/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: BDH
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	7/17/2008 3:49:04 PM
Surr: BFB	109	76.8-150		%REC	1	7/17/2008 3:49:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: BDH
Benzene	ND	0.10		µg/L	1	7/17/2008 3:49:04 PM
Toluene	ND	0.10		µg/L	1	7/17/2008 3:49:04 PM
Ethylbenzene	ND	0.10		µg/L	1	7/17/2008 3:49:04 PM
Xylenes, Total	ND	0.30		µg/L	1	7/17/2008 3:49:04 PM
Surr: 4-Bromofluorobenzene	103	70.2-105		%REC	1	7/17/2008 3:49:04 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 3rd Qtr-2008-VS

Work Order: 0807198

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807198-01A DUP	DUP				Batch ID: R29385	Analysis Date: 7/17/2008 1:46:20 PM
Gasoline Range Organics (GRO)	10.80	µg/L	5.0			1.83 27.8
Surr: BFB	2481	µg/L	0	124	76.8 150	0 0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB	MBLK				Batch ID: R29385	Analysis Date: 7/17/2008 10:04:41 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			
Surr: BFB	20.10	mg/L	0	100	79.2 121	
Sample ID: 2.5UG GRO LCS	LCS				Batch ID: R29385	Analysis Date: 7/17/2008 7:21:51 PM
Gasoline Range Organics (GRO)	0.4720	mg/L	0.050	94.4	80 115	
Surr: BFB	22.59	mg/L	0	113	79.2 121	

Method: EPA Method 8021B: Volatiles

Sample ID: 0807198-01A DUP	DUP				Batch ID: R29385	Analysis Date: 7/17/2008 1:46:20 PM
Benzene	ND	µg/L	0.10			0 25
Toluene	ND	µg/L	0.10			0 25
Ethylbenzene	ND	µg/L	0.10			0 25
Xylenes, Total	1.452	µg/L	0.30			2.21 25
Surr: 4-Bromofluorobenzene	2.220	µg/L	0	111	70.2 105	0 0 S

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB	MBLK				Batch ID: R29385	Analysis Date: 7/17/2008 10:04:41 AM
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Xylenes, Total	ND	µg/L	2.0			
Surr: 4-Bromofluorobenzene	19.13	µg/L	0	95.7	68.9 122	
Sample ID: 100NG BTEX LCS	LCS				Batch ID: R29385	Analysis Date: 7/17/2008 6:21:09 PM
Benzene	20.70	µg/L	1.0	104	85.9 113	
Toluene	20.82	µg/L	1.0	102	86.4 113	
Ethylbenzene	21.82	µg/L	1.0	107	83.5 118	
Xylenes, Total	61.97	µg/L	2.0	102	83.4 122	
Surr: 4-Bromofluorobenzene	22.30	µg/L	0	111	68.9 122	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

7/16/2008

Work Order Number 0807198

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

River Terrace 3rd QTR 2008

Project #:

Project Manager:

Sampler: Bob & Cindy

On Ice: ☒ Yes ☐ No

Sample Temperature: _____

Date Time Sample Request ID

7-15-08	930A	TP-13
	945A	TP-12
	10AM	TP-11
	1015A	TP-10
	1030A	TP-3
	1040 AM	Field Blank - Electric

Container Type and #

1-Tedlar

Preservative Type

HEAL No.

0807198

Analysis Request

BTEX + MTBE + TPB (8021)

BTEX + MTBE + TPB (Gas only)

TPH Method 8015B (Gas/TPH)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F⁻, Cl⁻, NO₃⁻, NO₂⁻, PO₄³⁻, SO₄²⁻)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles (Y or N)

Remarks:

Received by: mya 7/16/08

Relinquished by: Cindy Hurtado

Date: 7-15-08 Time: 1105AM

Received by: _____

Relinquished by: _____

Date: _____ Time: _____

COVER LETTER

Friday, December 05, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 4th QTR 2008 Soil Vapor

Order No.: 0811150

Dear Cindy Hurtado:

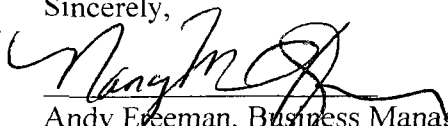
Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 11/12/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab Order: 0811150

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811150-01A	TP-7	R31165	EPA Method 8021B: Volatiles	11/11/2008 10:20:00 AM
0811150-01A	TP-7	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 10:20:00 AM
0811150-02A	TP-8	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 10:40:00 AM
0811150-02A	TP-8	R31165	EPA Method 8021B: Volatiles	11/11/2008 10:40:00 AM
0811150-03A	TP-6	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31312	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31262	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31165	EPA Method 8021B: Volatiles	11/11/2008 11:00:00 AM
0811150-03A	TP-6	R31165	EPA Method 8015B: Gasoline Range	11/11/2008 11:00:00 AM
0811150-04A	TP-1	R31262	EPA Method 8021B: Volatiles	11/11/2008 12:45:00 PM
0811150-04A	TP-1	R31264	EPA Method 8021B: Volatiles	11/11/2008 12:45:00 PM
0811150-04A	TP-1	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 12:45:00 PM
0811150-04A	TP-1	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 12:45:00 PM
0811150-05A	TP-2	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31312	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-05A	TP-2	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:15:00 PM
0811150-06A	TP-2FD	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:16:00 PM
0811150-06A	TP-2FD	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:16:00 PM
0811150-07A	TP-5	R31264	EPA Method 8021B: Volatiles	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31264	EPA Method 8015B: Gasoline Range	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:30:00 PM
0811150-07A	TP-5	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:30:00 PM
0811150-08A	TP-9	R31262	EPA Method 8021B: Volatiles	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31312	EPA Method 8021B: Volatiles	11/11/2008 1:45:00 PM
0811150-08A	TP-9	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 1:45:00 PM
0811150-09A	DW-#1	R31312	EPA Method 8021B: Volatiles	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31262	EPA Method 8015B: Gasoline Range	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31262	EPA Method 8021B: Volatiles	11/11/2008 2:15:00 PM
0811150-09A	DW-#1	R31312	EPA Method 8015B: Gasoline Range	11/11/2008 2:15:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab Order: 0811150

CASE NARRATIVE

See Corrective Action: [1959] 8021 BTEX AIR Sample numbers 0811150-04a and 07a. MP-Xylene was over-range of calibration curve. Xylenes are being reported as estimates due to lack of hold time.

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-01

Client Sample ID: TP-7
Collection Date: 11/11/2008 10:20:00 AM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	6.4	5.0		µg/L	1	11/13/2008 2:57:09 PM
Surr: BFB	120	76.8-150		%REC	1	11/13/2008 2:57:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/13/2008 2:57:09 PM
Toluene	ND	0.10		µg/L	1	11/13/2008 2:57:09 PM
Ethylbenzene	ND	0.10		µg/L	1	11/13/2008 2:57:09 PM
Xylenes, Total	ND	0.30		µg/L	1	11/13/2008 2:57:09 PM
Surr: 4-Bromofluorobenzene	76.1	70.2-105		%REC	1	11/13/2008 2:57:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-02

Client Sample ID: TP-8
Collection Date: 11/11/2008 10:40:00 AM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	7.0	5.0		µg/L	1	11/13/2008 3:58:16 PM
Surr: BFB	120	76.8-150		%REC	1	11/13/2008 3:58:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/13/2008 3:58:16 PM
Toluene	ND	0.10		µg/L	1	11/13/2008 3:58:16 PM
Ethylbenzene	ND	0.10		µg/L	1	11/13/2008 3:58:16 PM
Xylenes, Total	ND	0.30		µg/L	1	11/13/2008 3:58:16 PM
Surr: 4-Bromofluorobenzene	79.7	70.2-105		%REC	1	11/13/2008 3:58:16 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-03

Client Sample ID: TP-6
Collection Date: 11/11/2008 11:00:00 AM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	9.2	5.0		µg/L	1	11/21/2008 12:11:55 PM
Surr: BFB	113	76.8-150		%REC	1	11/21/2008 12:11:55 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 12:11:55 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 12:11:55 PM
Ethylbenzene	0.41	0.10		µg/L	1	11/21/2008 12:11:55 PM
Xylenes, Total	0.35	0.30		µg/L	1	11/21/2008 12:11:55 PM
Surr: 4-Bromofluorobenzene	91.4	70.2-105		%REC	1	11/21/2008 12:11:55 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-04

Client Sample ID: TP-1
Collection Date: 11/11/2008 12:45:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	210	25		µg/L	5	11/18/2008 12:57:39 PM
Surr: BFB	120	76.8-150		%REC	5	11/18/2008 12:57:39 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	7.7	0.50		µg/L	5	11/18/2008 12:57:39 PM
Toluene	ND	0.50		µg/L	5	11/18/2008 12:57:39 PM
Ethylbenzene	8.0	0.50		µg/L	5	11/18/2008 12:57:39 PM
Xylenes, Total	31	1.5	E	µg/L	5	11/18/2008 12:57:39 PM
Surr: 4-Bromofluorobenzene	73.7	70.2-105		%REC	5	11/18/2008 12:57:39 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-05

Client Sample ID: TP-2
Collection Date: 11/11/2008 1:15:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	78	5.0		µg/L	1	11/21/2008 12:42:48 PM
Surr: BFB	152	76.8-150	S	%REC	1	11/21/2008 12:42:48 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 12:42:48 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 12:42:48 PM
Ethylbenzene	0.14	0.10		µg/L	1	11/21/2008 12:42:48 PM
Xylenes, Total	1.7	0.30		µg/L	1	11/21/2008 12:42:48 PM
Surr: 4-Bromofluorobenzene	89.6	70.2-105		%REC	1	11/21/2008 12:42:48 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-06

Client Sample ID: TP-2FD
Collection Date: 11/11/2008 1:16:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	71	5.0		µg/L	1	11/18/2008 1:59:23 PM
Surr: BFB	159	76.8-150	S	%REC	1	11/18/2008 1:59:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/18/2008 1:59:23 PM
Toluene	ND	0.10		µg/L	1	11/18/2008 1:59:23 PM
Ethylbenzene	0.11	0.10		µg/L	1	11/18/2008 1:59:23 PM
Xylenes, Total	1.1	0.30		µg/L	1	11/18/2008 1:59:23 PM
Surr: 4-Bromofluorobenzene	70.6	70.2-105		%REC	1	11/18/2008 1:59:23 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-07

Client Sample ID: TP-5
Collection Date: 11/11/2008 1:30:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	190	25		µg/L	5	11/18/2008 2:30:08 PM
Surr: BFB	120	76.8-150		%REC	5	11/18/2008 2:30:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		µg/L	5	11/18/2008 2:30:08 PM
Toluene	ND	0.50		µg/L	5	11/18/2008 2:30:08 PM
Ethylbenzene	12	0.50		µg/L	5	11/18/2008 2:30:08 PM
Xylenes, Total	45	1.5	E	µg/L	5	11/18/2008 2:30:08 PM
Surr: 4-Bromofluorobenzene	73.2	70.2-105		%REC	5	11/18/2008 2:30:08 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-08

Client Sample ID: TP-9
Collection Date: 11/11/2008 1:45:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	10	5.0		µg/L	1	11/21/2008 1:14:00 PM
Surr: BFB	109	76.8-150		%REC	1	11/21/2008 1:14:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 1:14:00 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 1:14:00 PM
Ethylbenzene	0.21	0.10		µg/L	1	11/21/2008 1:14:00 PM
Xylenes, Total	1.0	0.30		µg/L	1	11/21/2008 1:14:00 PM
Surr: 4-Bromofluorobenzene	92.1	70.2-105		%REC	1	11/21/2008 1:14:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811150
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811150-09

Client Sample ID: DW-#1
Collection Date: 11/11/2008 2:15:00 PM
Date Received: 11/12/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/21/2008 1:45:10 PM
Surr: BFB	112	76.8-150		%REC	1	11/21/2008 1:45:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 1:45:10 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 1:45:10 PM
Ethylbenzene	ND	0.10		µg/L	1	11/21/2008 1:45:10 PM
Xylenes, Total	ND	0.30		µg/L	1	11/21/2008 1:45:10 PM
Surr: 4-Bromofluorobenzene	91.3	70.2-105		%REC	1	11/21/2008 1:45:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

05-Dec-08

Lab Order: 0811150

Client: Western Refining Southwest, Inc.

Project: River Terrace 4th QTR 2008 Soil

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0811150-01A	TP-7	11/11/2008 10:20:00 AM	Air	EPA Method 8015B: Gasoline Range	R31165		11/13/2008
				EPA Method 8021B: Volatiles	R31165		11/13/2008
0811150-02A	TP-8	11/11/2008 10:40:00 AM		EPA Method 8015B: Gasoline Range	R31165		11/13/2008
				EPA Method 8021B: Volatiles	R31165		11/13/2008
0811150-03A	TP-6	11/11/2008 11:00:00 AM		EPA Method 8015B: Gasoline Range	R31165		11/13/2008
				EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31165		11/13/2008
0811150-04A	TP-1	11/11/2008 12:45:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31264		11/18/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31264		11/18/2008
0811150-05A	TP-2	11/11/2008 1:15:00 PM		EPA Method 8015B: Gasoline Range	R31264		11/18/2008
				EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31264		11/18/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
0811150-06A	TP-2FD	11/11/2008 1:16:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31264		11/18/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31264		11/18/2008
0811150-07A	TP-5	11/11/2008 1:30:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008

Hall Environmental Analysis Laboratory, Inc.

05-Dec-08

Lab Order: 0811150

Client: Western Refining Southwest, Inc.

Project: River Terrace 4th QTR 2008 Soil

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0811150-07A	TP-5	11/11/2008 1:30:00 PM	Air	EPA Method 8015B: Gasoline Range	R31264		11/18/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31264		11/18/2008
0811150-08A	TP-9	11/11/2008 1:45:00 PM		EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811150-09A	DW-#1	11/11/2008 2:15:00 PM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8015B: Gasoline Range	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31262		11/17/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4th QTR 2008 Soil Vapor

Work Order: 0811150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0811150-01A DUP	DUP					Batch ID: R31165	Analysis Date: 11/13/2008 3:27:43 PM		
Gasoline Range Organics (GRO)	6.400	µg/L	5.0				0	27.8	
Surr: BFB	2367	µg/L	0	118	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: b 1	MBLK					Batch ID: R31165	Analysis Date: 11/13/2008 10:19:06 AM		
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	22.67	mg/L	0	113	59.9	122			
Sample ID: 2.5UG GRO LCS	LCS					Batch ID: R31165	Analysis Date: 11/13/2008 5:29:55 PM		
Gasoline Range Organics (GRO)	0.4820	mg/L	0.050	89.2	80	115			
Surr: BFB	25.09	mg/L	0	125	59.9	122			S

Method: EPA Method 8021B: Volatiles

Sample ID: 0811150-01A DUP	DUP					Batch ID: R31165	Analysis Date: 11/13/2008 3:27:43 PM		
Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.499	µg/L	0	75.0	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: b 1	MBLK					Batch ID: R31165	Analysis Date: 11/13/2008 10:19:06 AM		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	14.73	µg/L	0	73.7	65.9	130			
Sample ID: 100NG BTEX LCS	LCS					Batch ID: R31165	Analysis Date: 11/13/2008 6:00:46 PM		
Benzene	23.02	µg/L	1.0	115	85.9	113			S
Toluene	22.99	µg/L	1.0	115	86.4	113			S
Ethylbenzene	23.65	µg/L	1.0	118	83.5	118			S
Xylenes, Total	72.99	µg/L	2.0	122	83.4	122			
Surr: 4-Bromofluorobenzene	16.59	µg/L	0	82.9	65.9	130			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4th QTR 2008 Soil Vapor

Work Order: 0811150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: b 5

MBLK

Batch ID: R31262 Analysis Date: 11/17/2008 11:38:55 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Surr: BFB 22.38 mg/L 0 112 59.9 122

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R31262 Analysis Date: 11/17/2008 4:54:15 PM

Gasoline Range Organics (GRO) 0.5060 mg/L 0.050 101 80 115

Surr: BFB 24.36 mg/L 0 122 59.9 122

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R31262 Analysis Date: 11/17/2008 9:35:21 AM

Benzene ND µg/L 1.0

Toluene ND µg/L 1.0

Ethylbenzene ND µg/L 1.0

Xylenes, Total ND µg/L 2.0

Surr: 4-Bromofluorobenzene 13.86 µg/L 0 69.3 65.9 130

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R31262 Analysis Date: 11/17/2008 4:23:34 PM

Benzene 19.45 µg/L 1.0 97.3 85.9 113

Toluene 19.31 µg/L 1.0 96.5 86.4 113

Ethylbenzene 19.47 µg/L 1.0 97.3 83.5 118

Xylenes, Total 58.11 µg/L 2.0 96.8 83.4 122

Surr: 4-Bromofluorobenzene 14.90 µg/L 0 74.5 65.9 130

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB

MBLK

Batch ID: R31264 Analysis Date: 11/18/2008 10:21:14 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Surr: BFB 22.35 mg/L 0 112 59.9 122

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R31264 Analysis Date: 11/18/2008 4:01:57 PM

Gasoline Range Organics (GRO) 0.4760 mg/L 0.050 88.8 80 115

Surr: BFB 23.36 mg/L 0 117 59.9 122

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB

MBLK

Batch ID: R31264 Analysis Date: 11/18/2008 10:21:14 AM

Benzene ND µg/L 1.0

Toluene ND µg/L 1.0

Ethylbenzene ND µg/L 1.0

Xylenes, Total ND µg/L 2.0

Surr: 4-Bromofluorobenzene 13.03 µg/L 0 65.2 65.9 130

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R31264 Analysis Date: 11/18/2008 3:31:15 PM

Benzene 18.47 µg/L 1.0 92.4 85.9 113

Toluene 18.33 µg/L 1.0 91.7 86.4 113

Ethylbenzene 18.70 µg/L 1.0 93.5 83.5 118

Xylenes, Total 55.12 µg/L 2.0 91.9 83.4 122

Surr: 4-Bromofluorobenzene 14.29 µg/L 0 71.5 65.9 130

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4th QTR 2008 Soil Vapor

Work Order: 0811150

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0811179-03A DUP

DUP

Batch ID: R31312 Analysis Date: 11/21/2008 3:49:53 PM

Gasoline Range Organics (GRO)	ND	µg/L	5.0				0	27.8
Surr: BFB	2355	µg/L	0	118	76.8	150	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: b 1

MBLK

Batch ID: R31312 Analysis Date: 11/21/2008 9:37:41 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	21.20	mg/L	0	106	59.9	122		

Sample ID: 2.5UG GRO LCS

LCS

Batch ID: R31312 Analysis Date: 11/21/2008 4:52:09 PM

Gasoline Range Organics (GRO)	0.4020	mg/L	0.050	80.4	80	115		
Surr: BFB	23.53	mg/L	0	118	59.9	122		

Method: EPA Method 8021B: Volatiles

Sample ID: 0811179-03A DUP

DUP

Batch ID: R31312 Analysis Date: 11/21/2008 3:49:53 PM

Benzene	ND	µg/L	0.10				0	25
Toluene	ND	µg/L	0.10				0	25
Ethylbenzene	ND	µg/L	0.10				0	25
Xylenes, Total	ND	µg/L	0.30				0	25
Surr: 4-Bromofluorobenzene	1.924	µg/L	0	96.2	70.2	105	0	0

Method: EPA Method 8021B: Volatiles

Sample ID: b 1

MBLK

Batch ID: R31312 Analysis Date: 11/21/2008 9:37:41 AM

Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	µg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Surr: 4-Bromofluorobenzene	17.22	µg/L	0	86.1	65.9	130		

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R31312 Analysis Date: 11/21/2008 5:23:25 PM

Benzene	19.31	µg/L	1.0	96.5	85.9	113		
Toluene	19.29	µg/L	1.0	96.4	86.4	113		
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118		
Xylenes, Total	58.56	µg/L	2.0	97.6	83.4	122		
Surr: 4-Bromofluorobenzene	19.69	µg/L	0	98.5	65.9	130		

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

11/12/2008

Work Order Number 0811150

Received by: TLS

Checklist completed by:

[Signature]
Signature

11/12/08
Date

Sample ID labels checked by:

[Initials]
Initials

Matrix:

Carrier name UPS

- | | | | | |
|---|--|------------------------------|---|--------------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Not Shipped <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace? | No VOA vials submitted <input checked="" type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| Water - Preservation labels on bottle and cap match? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

COVER LETTER

Wednesday, November 26, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: River Terrace 4th QTR 2008 Soil Vapor

Order No.: 0811179

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 11/13/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



CLIENT: Western Refining Southwest, Inc.
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab Order: 0811179

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0811179-01A	MW #49	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:00:00 AM
0811179-01A	MW #49	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:00:00 AM
0811179-02A	TP-10	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:30:00 AM
0811179-02A	TP-10	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:30:00 AM
0811179-03A	TP-13	R31312	EPA Method 8021B: Volatiles	11/12/2008 10:50:00 AM
0811179-03A	TP-13	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 10:50:00 AM
0811179-04A	TP-12	R31312	EPA Method 8021B: Volatiles	11/12/2008 1:00:00 PM
0811179-04A	TP-12	R31312	EPA Method 8015B: Gasoline Range	11/12/2008 1:00:00 PM
0811179-05A	TP-11	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:20:00 PM
0811179-05A	TP-11	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:20:00 PM
0811179-06A	TP-3	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:40:00 PM
0811179-06A	TP-3	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:40:00 PM
0811179-07A	FIELD BLANK	R31347	EPA Method 8021B: Volatiles	11/12/2008 1:45:00 PM
0811179-07A	FIELD BLANK	R31347	EPA Method 8015B: Gasoline Range	11/12/2008 1:45:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-01

Client Sample ID: MW #49
Collection Date: 11/12/2008 10:00:00 AM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/21/2008 2:16:19 PM
Surr: BFB	110	76.8-150		%REC	1	11/21/2008 2:16:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 2:16:19 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 2:16:19 PM
Ethylbenzene	ND	0.10		µg/L	1	11/21/2008 2:16:19 PM
Xylenes, Total	ND	0.30		µg/L	1	11/21/2008 2:16:19 PM
Surr: 4-Bromofluorobenzene	87.2	70.2-105		%REC	1	11/21/2008 2:16:19 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-02

Client Sample ID: TP-10
Collection Date: 11/12/2008 10:30:00 AM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/21/2008 2:47:25 PM
Surr: BFB	113	76.8-150		%REC	1	11/21/2008 2:47:25 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 2:47:25 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 2:47:25 PM
Ethylbenzene	ND	0.10		µg/L	1	11/21/2008 2:47:25 PM
Xylenes, Total	ND	0.30		µg/L	1	11/21/2008 2:47:25 PM
Surr: 4-Bromofluorobenzene	90.8	70.2-105		%REC	1	11/21/2008 2:47:25 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-03

Client Sample ID: TP-13
Collection Date: 11/12/2008 10:50:00 AM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/21/2008 3:18:43 PM
Surr: BFB	102	76.8-150		%REC	1	11/21/2008 3:18:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 3:18:43 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 3:18:43 PM
Ethylbenzene	ND	0.10		µg/L	1	11/21/2008 3:18:43 PM
Xylenes, Total	ND	0.30		µg/L	1	11/21/2008 3:18:43 PM
Surr: 4-Bromofluorobenzene	81.4	70.2-105		%REC	1	11/21/2008 3:18:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Page 3 of 7

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-04

Client Sample ID: TP-12
Collection Date: 11/12/2008 1:00:00 PM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/21/2008 4:21:04 PM
Surr: BFB	95.7	76.8-150		%REC	1	11/21/2008 4:21:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/21/2008 4:21:04 PM
Toluene	ND	0.10		µg/L	1	11/21/2008 4:21:04 PM
Ethylbenzene	ND	0.10		µg/L	1	11/21/2008 4:21:04 PM
Xylenes, Total	ND	0.30		µg/L	1	11/21/2008 4:21:04 PM
Surr: 4-Bromofluorobenzene	73.3	70.2-105		%REC	1	11/21/2008 4:21:04 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-05

Client Sample ID: TP-11
Collection Date: 11/12/2008 1:20:00 PM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/24/2008 1:33:01 PM
Surr: BFB	107	76.8-150		%REC	1	11/24/2008 1:33:01 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/24/2008 1:33:01 PM
Toluene	ND	0.10		µg/L	1	11/24/2008 1:33:01 PM
Ethylbenzene	ND	0.10		µg/L	1	11/24/2008 1:33:01 PM
Xylenes, Total	ND	0.30		µg/L	1	11/24/2008 1:33:01 PM
Surr: 4-Bromofluorobenzene	91.0	70.2-105		%REC	1	11/24/2008 1:33:01 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-06

Client Sample ID: TP-3
Collection Date: 11/12/2008 1:40:00 PM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	5.2	5.0		µg/L	1	11/24/2008 2:04:12 PM
Surr: BFB	113	76.8-150		%REC	1	11/24/2008 2:04:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/24/2008 2:04:12 PM
Toluene	ND	0.10		µg/L	1	11/24/2008 2:04:12 PM
Ethylbenzene	ND	0.10		µg/L	1	11/24/2008 2:04:12 PM
Xylenes, Total	ND	0.30		µg/L	1	11/24/2008 2:04:12 PM
Surr: 4-Bromofluorobenzene	93.0	70.2-105		%REC	1	11/24/2008 2:04:12 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0811179
Project: River Terrace 4th QTR 2008 Soil Vapor
Lab ID: 0811179-07

Client Sample ID: FIELD BLANK
Collection Date: 11/12/2008 1:45:00 PM
Date Received: 11/13/2008
Matrix: AIR

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	5.0		µg/L	1	11/24/2008 2:35:16 PM
Surr: BFB	106	76.8-150		%REC	1	11/24/2008 2:35:16 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	0.10		µg/L	1	11/24/2008 2:35:16 PM
Toluene	ND	0.10		µg/L	1	11/24/2008 2:35:16 PM
Ethylbenzene	ND	0.10		µg/L	1	11/24/2008 2:35:16 PM
Xylenes, Total	ND	0.30		µg/L	1	11/24/2008 2:35:16 PM
Surr: 4-Bromofluorobenzene	89.3	70.2-105		%REC	1	11/24/2008 2:35:16 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Lab Order: 0811179
Client: Western Refining Southwest, Inc.
Project: River Terrace 4th QTR 2008 Soil

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0811179-01A	MW #49	11/12/2008 10:00:00 AM	Air	EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-02A	TP-10	11/12/2008 10:30:00 AM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-03A	TP-13	11/12/2008 10:50:00 AM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-04A	TP-12	11/12/2008 1:00:00 PM		EPA Method 8015B: Gasoline Range	R31312		11/21/2008
				EPA Method 8021B: Volatiles	R31312		11/21/2008
0811179-05A	TP-11	11/12/2008 1:20:00 PM		EPA Method 8015B: Gasoline Range	R31347		11/24/2008
				EPA Method 8021B: Volatiles	R31347		11/24/2008
0811179-06A	TP-3	11/12/2008 1:40:00 PM		EPA Method 8015B: Gasoline Range	R31347		11/24/2008
				EPA Method 8021B: Volatiles	R31347		11/24/2008
0811179-07A	FIELD BLANK	11/12/2008 1:45:00 PM		EPA Method 8015B: Gasoline Range	R31347		11/24/2008
				EPA Method 8021B: Volatiles	R31347		11/24/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4th QTR 2008 Soil Vapor

Work Order: 0811179

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0811179-03A DUP	DUP				Batch ID: R31312	Analysis Date: 11/21/2008 3:49:53 PM
Gasoline Range Organics (GRO)	ND	µg/L	5.0			
Surr: BFB	2355	µg/L	0	118	76.8	150

Method: EPA Method 8015B: Gasoline Range

Sample ID: b 1	MBLK				Batch ID: R31312	Analysis Date: 11/21/2008 9:37:41 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			
Surr: BFB	21.20	mg/L	0	106	59.9	122

Sample ID: 2.5UG GRO LCS

	LCS				Batch ID: R31312	Analysis Date: 11/21/2008 4:52:09 PM
Gasoline Range Organics (GRO)	0.4020	mg/L	0.050	80.4	80	115
Surr: BFB	23.53	mg/L	0	118	59.9	122

Method: EPA Method 8021B: Volatiles

Sample ID: 0811179-03A DUP	DUP				Batch ID: R31312	Analysis Date: 11/21/2008 3:49:53 PM
Benzene	ND	µg/L	0.10			
Toluene	ND	µg/L	0.10			
Ethylbenzene	ND	µg/L	0.10			
Xylenes, Total	ND	µg/L	0.30			
Surr: 4-Bromofluorobenzene	1.924	µg/L	0	96.2	70.2	105

Method: EPA Method 8021B: Volatiles

Sample ID: b 1	MBLK				Batch ID: R31312	Analysis Date: 11/21/2008 9:37:41 AM
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Xylenes, Total	ND	µg/L	2.0			
Surr: 4-Bromofluorobenzene	17.22	µg/L	0	86.1	65.9	130

Sample ID: 100NG BTEX LCS

	LCS				Batch ID: R31312	Analysis Date: 11/21/2008 5:23:25 PM
Benzene	19.31	µg/L	1.0	96.5	85.9	113
Toluene	19.29	µg/L	1.0	96.4	86.4	113
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118
Xylenes, Total	58.56	µg/L	2.0	97.6	83.4	122
Surr: 4-Bromofluorobenzene	19.69	µg/L	0	98.5	65.9	130

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: River Terrace 4th QTR 2008 Soil Vapor

Work Order: 0811179

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Gasoline Range

Sample ID: 0811179-06A DUP DUP Batch ID: R31347 Analysis Date: 11/24/2008 3:06:16 PM

Gasoline Range Organics (GRO)	5.200	µg/L	5.0				0	27.8	
Surr: BFB	2303	µg/L	0	115	76.8	150	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: b 1 MBLK Batch ID: R31347 Analysis Date: 11/24/2008 10:27:20 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	21.64	mg/L	0	108	59.9	122			

Sample ID: 2.5UG GRO LCS

Batch ID: R31347 Analysis Date: 11/24/2008 4:39:48 PM

Gasoline Range Organics (GRO)	0.4400	mg/L	0.050	81.6	80	115			
Surr: BFB	23.04	mg/L	0	115	59.9	122			

Method: EPA Method 8021B: Volatiles

Sample ID: 0811179-06A DUP DUP Batch ID: R31347 Analysis Date: 11/24/2008 3:06:16 PM

Benzene	ND	µg/L	0.10				0	25	
Toluene	ND	µg/L	0.10				0	25	
Ethylbenzene	ND	µg/L	0.10				0	25	
Xylenes, Total	ND	µg/L	0.30				0	25	
Surr: 4-Bromofluorobenzene	1.887	µg/L	0	94.3	70.2	105	0	0	

Method: EPA Method 8021B: Volatiles

Sample ID: b 1 MBLK Batch ID: R31347 Analysis Date: 11/24/2008 10:27:20 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.31	µg/L	0	96.6	65.9	130			

Sample ID: 100NG BTEX LCS

Batch ID: R31347 Analysis Date: 11/24/2008 5:10:58 PM

Benzene	20.65	µg/L	1.0	103	85.9	113			
Toluene	20.62	µg/L	1.0	103	86.4	113			
Ethylbenzene	20.73	µg/L	1.0	104	83.5	118			
Xylenes, Total	61.93	µg/L	2.0	103	83.4	122			
Surr: 4-Bromofluorobenzene	19.99	µg/L	0	99.9	65.9	130			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

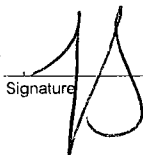
Date Received:

11/13/2008

Work Order Number 0811179

Received by: TLS

Checklist completed by:



Signature

11/13/08

Date

Sample ID labels checked by:



Initials

Matrix:

Carrier name UPS

- | | | | | |
|---|--|------------------------------|---|--------------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Not Shipped <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace? | No VOA vials submitted <input checked="" type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/> | |
| Water - Preservation labels on bottle and cap match? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |

Container/Temp Blank temperature?

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Turn-Around Time:

Client: Western Refining (Blmfd)

Mailing Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email or Fax#: 505-632-3911

QA/QC Package:

☐ Standard

☐ Other☐ EDD (Type)

Project Name:

Project Name: Soil Vapor #

River T
Project #:

Project Manager:

Sampler:

On Ice: ☒ Yes ☐ No

Sample Temperature:

Date	Time	Matrix	Sample Request ID
------	------	--------	-------------------

Container
Type and #Preservative
Type

HEAL No.

10000	Vapor	MW#49
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1030A	-	TP-10
-------	---	-------

1050A	TP-13
-------	-------

1 em	TP-12
------	-------

1209A	TP-11
-------	-------

TP-3

Field Blank

Date:	Time:
-------	-------

41208	215am
-------	-------

Relinquished by:

ished by: Wendy Hurst
ished by:

Date: _____ Time: _____

Relinquished by:

Received by:

Date _____ Time _____

Received by:

Date
Time

Remarks:

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

[illegible]

COVER LETTER

Monday, December 08, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: GAC Monthly Dec 2, 2008

Order No.: 0812051

Dear Cindy Hurtado:

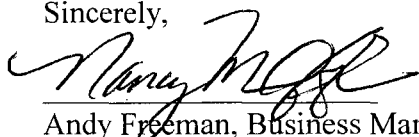
Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 12/3/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-08

CLIENT: Western Refining Southwest, Inc.
Project: GAC Monthly Dec 2, 2008
Lab Order: 0812051

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0812051-01A	GAC Lead	R31504	EPA Method 8015B: Gasoline Range	12/2/2008 9:15:00 AM
0812051-01A	GAC Lead	R31504	EPA Method 8021B: Volatiles	12/2/2008 9:15:00 AM
0812051-01A	GAC Lead	17780	EPA Method 8015B: Diesel Range	12/2/2008 9:15:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0812051
Project: GAC Monthly Dec 2, 2008
Lab ID: 0812051-01

Client Sample ID: GAC Lead
Collection Date: 12/2/2008 9:15:00 AM
Date Received: 12/3/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/4/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/4/2008
Surr: DNOP	126	58-140		%REC	1	12/4/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	12/5/2008 9:18:47 PM
Surr: BFB	89.3	59.9-122		%REC	1	12/5/2008 9:18:47 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	12/5/2008 9:18:47 PM
Toluene	ND	1.0		µg/L	1	12/5/2008 9:18:47 PM
Ethylbenzene	ND	1.0		µg/L	1	12/5/2008 9:18:47 PM
Xylenes, Total	ND	2.0		µg/L	1	12/5/2008 9:18:47 PM
Surr: 4-Bromofluorobenzene	92.4	65.9-130		%REC	1	12/5/2008 9:18:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

08-Dec-08

Lab Order: 0812051
Client: Western Refining Southwest, Inc.
Project: GAC Monthly Dec 2, 2008

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0812051-01A	GAC Lead	12/2/2008 9:15:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17780	12/4/2008	12/4/2008
				EPA Method 8015B: Gasoline Range	R31504		12/5/2008
				EPA Method 8021B: Volatiles	R31504		12/5/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Dec 2, 2008

Work Order: 0812051

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-17780		MBLK			Batch ID: 17780		Analysis Date:		12/4/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.207	mg/L	0	121	58	140			
Sample ID: LCS-17780		LCS			Batch ID: 17780		Analysis Date:		12/4/2008
Diesel Range Organics (DRO)	5.948	mg/L	1.0	119	74	157			
Surr: DNOP	0.6252	mg/L	0	125	58	140			
Sample ID: LCSD-17780		LCSD			Batch ID: 17780		Analysis Date:		12/4/2008
Diesel Range Organics (DRO)	6.288	mg/L	1.0	126	74	157	5.55	23	
Surr: DNOP	0.6326	mg/L	0	127	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		MBLK			Batch ID: R31504		Analysis Date:		12/5/2008 9:39:15 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	15.96	mg/L	0	79.8	59.9	122			
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R31504		Analysis Date:		12/6/2008 4:23:42 AM
Gasoline Range Organics (GRO)	0.5210	mg/L	0.050	104	80	115			
Surr: BFB	18.69	mg/L	0	93.5	59.9	122			
Sample ID: 2.5UG GRO LCSD		LCSD			Batch ID: R31504		Analysis Date:		12/6/2008 4:54:05 AM
Gasoline Range Organics (GRO)	0.5006	mg/L	0.050	100	80	115	3.99	8.39	
Surr: BFB	19.11	mg/L	0	95.6	59.9	122	0	0	
Sample ID: 0812051-01A DUP		DUP			Batch ID: R31504		Analysis Date:		12/5/2008 9:49:13 PM
Gasoline Range Organics (GRO)	ND	mg/L	0.050				0	20	
Surr: BFB	18.24	mg/L	0	91.2	59.9	122	0	0	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Dec 2, 2008

Work Order: 0812051

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 0812051-01A MSD

MSD

Batch ID: R31504

Analysis Date: 12/5/2008 10:49:55 PM

Benzene	21.27	µg/L	1.0	106	85.9	113	1.02	27	
Toluene	21.00	µg/L	1.0	105	86.4	113	1.01	19	
Ethylbenzene	21.03	µg/L	1.0	104	83.5	118	1.39	10	
Xylenes, Total	63.53	µg/L	2.0	105	83.4	122	0.640	13	
Surr: 4-Bromofluorobenzene	19.62	µg/L	0	98.1	65.9	130	0	0	

Sample ID: 5ML RB

MBLK

Batch ID: R31504

Analysis Date: 12/5/2008 9:39:15 AM

Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	15.42	µg/L	0	77.1	65.9	130			

Sample ID: 100NG BTEX LCS

LCS

Batch ID: R31504

Analysis Date: 12/6/2008 9:58:05 AM

Benzene	21.14	µg/L	1.0	106	85.9	113			
Toluene	21.26	µg/L	1.0	106	86.4	113			
Ethylbenzene	20.98	µg/L	1.0	105	83.5	118			
Xylenes, Total	63.01	µg/L	2.0	105	83.4	122			
Surr: 4-Bromofluorobenzene	20.92	µg/L	0	105	65.9	130			

Sample ID: 0812051-01A MS

MS

Batch ID: R31504

Analysis Date: 12/5/2008 10:19:34 PM

Benzene	21.06	µg/L	1.0	105	85.9	113			
Toluene	20.79	µg/L	1.0	104	86.4	113			
Ethylbenzene	21.33	µg/L	1.0	106	83.5	118			
Xylenes, Total	63.94	µg/L	2.0	106	83.4	122			
Surr: 4-Bromofluorobenzene	21.47	µg/L	0	107	65.9	130			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

12/3/2008

Work Order Number 0812051

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

4°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D

Albuquerque, New Mexico 87109

Tel. 505.345.3975 Fax 505.345.4107

www.hallenvironmental.com

QA/QC Package:

Std

Level 4

Other:

Project Name:

GAC MONTHLY Dec. 2, 2008

Project #:

Project Manager:

Samplers: 1

Sample Temperature:

1. *in situ* hybridization

Preservative

HEAL No.

HEAL No. 08/2051

Number/Volume

4-V0A

H ₂ O	GAC-Lead
------------------	----------

12-2-08	9:15
---------	------

Time:

Sample I.D. No.

Matrix

Time:

Date:	Time:
-------	-------

Belinquinsh Bv (Signature)

Received By: (Signature)

DATE: 10-1-2011
TIME: 1:15

100

70

Time:

Date:	Time:
-------	-------

Relinquished By: (Signature)

Received By: (Signature)

Remarks:

ANALYSIS REQUEST

COVER LETTER

Monday, November 03, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: GAC 4th QTR 10/15/08

Order No.: 0810330

Dear Cindy Hurtado:

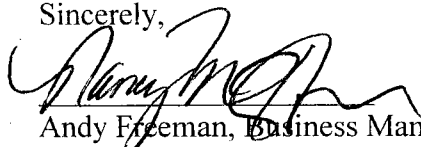
Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 10/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 03-Nov-08

CLIENT: Western Refining Southwest, Inc.
Project: GAC 4th QTR 10/15/08
Lab Order: 0810330

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0810330-01A	GAC-Lead	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:15:00 AM
0810330-01A	GAC-Lead	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:15:00 AM
0810330-01A	GAC-Lead	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:15:00 AM
0810330-02A	GAC-Lag	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:20:00 AM
0810330-02A	GAC-Lag	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:20:00 AM
0810330-02A	GAC-Lag	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:20:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8021B: Volatiles	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	R30911	EPA Method 8015B: Gasoline Range	10/15/2008 8:25:00 AM
0810330-03A	GAC-Inlet	17380	EPA Method 8015B: Diesel Range	10/15/2008 8:25:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 03-Nov-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0810330
Project: GAC 4th QTR 10/15/08
Lab ID: 0810330-01

Client Sample ID: GAC Lead
Collection Date: 10/15/2008 8:15:00 AM
Date Received: 10/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/16/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/16/2008
Surr: DNOP	128	58-140		%REC	1	10/16/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.10		mg/L	1	10/28/2008 1:10:54 PM
Surr: BFB	79.5	59.9-122		%REC	1	10/28/2008 1:10:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	10/28/2008 1:10:54 PM
Toluene	ND	1.0		µg/L	1	10/28/2008 1:10:54 PM
Ethylbenzene	ND	1.0		µg/L	1	10/28/2008 1:10:54 PM
Xylenes, Total	ND	2.0		µg/L	1	10/28/2008 1:10:54 PM
Surr: 4-Bromofluorobenzene	70.6	65.9-130		%REC	1	10/28/2008 1:10:54 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 03-Nov-08

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GAC-Lag

Lab Order: 0810330

Collection Date: 10/15/2008 8:20:00 AM

Project: GAC 4th QTR 10/15/08

Date Received: 10/16/2008

Lab ID: 0810330-02

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/16/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/16/2008
Surr: DNOP	131	58-140		%REC	1	10/16/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.10		mg/L	1	10/28/2008 1:41:23 PM
Surr: BFB	79.6	59.9-122		%REC	1	10/28/2008 1:41:23 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	10/28/2008 1:41:23 PM
Toluene	ND	1.0		µg/L	1	10/28/2008 1:41:23 PM
Ethylbenzene	ND	1.0		µg/L	1	10/28/2008 1:41:23 PM
Xylenes, Total	ND	2.0		µg/L	1	10/28/2008 1:41:23 PM
Surr: 4-Bromofluorobenzene	72.5	65.9-130		%REC	1	10/28/2008 1:41:23 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 20-Jan-09

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GAC-Inlet

Lab Order: 0810330

Collection Date: 10/15/2008 8:25:00 AM

Project: GAC 4th QTR 10/15/08

Date Received: 10/16/2008

Lab ID: 0810330-03

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS # EPA METHOD 8015B: DIESEL RANGE							Analyst: SCC
TPH-Diesel Diesel Range Organics (DRO)	4.4		0.97	1.0	mg/L	1	10/16/2008
TPH-Motor Oil Motor Oil Range Organics (MRO)	ND		5.0	5.0	mg/L	1	10/16/2008
117-84-0 Surr: DNOP	133		0	58-140	%REC	1	10/16/2008
CAS # EPA METHOD 8015B: GASOLINE RANGE							Analyst: DAM
TPH-Gasoline Gasoline Range Organics (GRO)	16		0.29	1.0	mg/L	10	10/28/2008 2:44:46 PM
460-00-4 Surr: BFB	84.9		0	59.9-122	%REC	10	10/28/2008 2:44:46 PM
CAS # EPA METHOD 8021B: VOLATILES							Analyst: DAM
71-43-2 Benzene	ND		0.91	10	µg/L	10	10/28/2008 2:44:46 PM
108-88-3 Toluene	ND		2.1	10	µg/L	10	10/28/2008 2:44:46 PM
100-41-4 Ethylbenzene	580		0.54	10	µg/L	10	10/28/2008 2:44:46 PM
1330-20-7 Xylenes, Total	4800		28	200	µg/L	100	10/28/2008 2:11:40 PM
460-00-4 Surr: 4-Bromofluorobenzene	79.6		0	65.9-130	%REC	100	10/28/2008 2:11:40 PM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

03-Nov-08

Lab Order: 0810330
 Client: Western Refining Southwest, Inc.
 Project: GAC 4th QTR 10/15/08

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0810330-01A	GAC Lead	10/15/2008 8:15:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008
0810330-02A	GAC-Lag	10/15/2008 8:20:00 AM		EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008
0810330-03A	GAC-Inlet	10/15/2008 8:25:00 AM		EPA Method 8015B: Diesel Range	17380	10/16/2008	10/16/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8015B: Gasoline Range	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008
				EPA Method 8021B: Volatiles	R30911		10/28/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC 4th QTR 10/15/08

Work Order: 0810330

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-17380		MBLK		Batch ID: 17380		Analysis Date: 10/16/2008	
Diesel Range Organics (DRO)	ND	mg/L	1.0				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Surr: DNOP	1.225	mg/L	0	123	58	140	
Sample ID: LCS-17380		LCS		Batch ID: 17380		Analysis Date: 10/16/2008	
Diesel Range Organics (DRO)	6.587	mg/L	1.0	132	74	157	
Surr: DNOP	0.6551	mg/L	0	131	58	140	
Sample ID: LCSD-17380		LCSD		Batch ID: 17380		Analysis Date: 10/16/2008	
Diesel Range Organics (DRO)	6.460	mg/L	1.0	129	74	157	1.95 23
Surr: DNOP	0.6345	mg/L	0	127	58	140	0 0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0810330-01A MSD		MSD			Batch ID: R30911		Analysis Date: 10/28/2008 6:47:51 PM	
Gasoline Range Organics (GRO)	0.4272	mg/L	0.10	74.7	80	115	1.70	8.39 S
Surr: BFB	16.37	mg/L	0	81.9	59.9	122	0	0
Sample ID: 5ML RB		MBLK			Batch ID: R30911		Analysis Date: 10/28/2008 8:37:17 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.10					
Surr: BFB	15.95	mg/L	0	79.8	59.9	122		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R30911		Analysis Date: 10/28/2008 7:18:24 PM	
Gasoline Range Organics (GRO)	0.4568	mg/L	0.10	80.7	80	115		
Surr: BFB	17.12	mg/L	0	85.6	59.9	122		
Sample ID: 0810330-01A MS		MS			Batch ID: R30911		Analysis Date: 10/28/2008 6:17:21 PM	
Gasoline Range Organics (GRO)	0.4200	mg/L	0.10	73.3	80	115		S
Surr: BFB	16.11	mg/L	0	80.6	59.9	122		

Method: EPA Method 8021B: Volatiles

Sample ID: 100NG BTEX LCS		LCS			Batch ID: R30911		Analysis Date: 10/28/2008 7:48:54 PM	
Benzene	18.05	µg/L	1.0	90.3	85.9	113		
Toluene	17.91	µg/L	1.0	89.5	86.4	113		
Ethylbenzene	17.56	µg/L	1.0	87.8	83.5	118		
Xylenes, Total	52.18	µg/L	2.0	87.0	83.4	122		
Surr: 4-Bromofluorobenzene	16.52	µg/L	0	82.6	65.9	130		

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

10/16/2008

Work Order Number 0810330

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

2°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



COVER LETTER

Monday, October 06, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GAC Monthly Sept 9, 2008

Order No.: 0809181

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 9/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 06-Oct-08

CLIENT: Western Refining Southwest, Inc.
Project: GAC Monthly Sept 9, 2008
Lab Order: 0809181

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0809181-01A	GAC Lead	R30349	EPA Method 8021B: Volatiles	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	R30349	EPA Method 8015B: Gasoline Range	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	17076	EPA Method 8015B: Diesel Range	9/9/2008 9:30:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Oct-08

CLIENT: Western Refining Southwest, Inc.**Client Sample ID:** GAC Lead**Lab Order:** 0809181**Collection Date:** 9/9/2008 9:30:00 AM**Project:** GAC Monthly Sept 9, 2008**Date Received:** 9/10/2008**Lab ID:** 0809181-01**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/16/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/16/2008
Surr: DNOP	131	58-140		%REC	1	9/16/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/23/2008 1:02:41 PM
Surr: BFB	84.4	59.9-122		%REC	1	9/23/2008 1:02:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Toluene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Ethylbenzene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Xylenes, Total	ND	2.0		µg/L	1	9/23/2008 1:02:41 PM
Surr: 4-Bromofluorobenzene	84.1	65.9-130		%REC	1	9/23/2008 1:02:41 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

06-Oct-08

Lab Order: 0809181

Client: Western Refining Southwest, Inc.

Project: GAC Monthly Sept 9, 2008

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0809181-01A	GAC Lead	9/9/2008 9:30:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17076	9/16/2008	9/16/2008
				EPA Method 8015B: Gasoline Range	R30349		9/23/2008
				EPA Method 8021B: Volatiles	R30349		9/23/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Sept 9, 2008

Work Order: 0809181

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-17076		MBLK			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.303	mg/L	0	130	58	140			
Sample ID: LCS-17076		LCS			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	5.731	mg/L	1.0	115	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.6642	mg/L	0	133	58	140			
Sample ID: LCSD-17076		LCSD			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	5.941	mg/L	1.0	119	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.6857	mg/L	0	137	58	140			

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0809181-01A MSD		MSD			Batch ID: R30349		Analysis Date:		9/23/2008 4:08:22 PM
Gasoline Range Organics (GRO)	0.4576	mg/L	0.050	91.5	80	115	0.658	8.39	
Surr: BFB	18.85	mg/L	0	94.3	59.9	122	0	0	
Sample ID: 5ML RB		MBLK			Batch ID: R30349		Analysis Date:		9/23/2008 9:31:50 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	17.46	mg/L	0	87.3	59.9	122			
Sample ID: LCS-GRO 2.5UG		LCS			Batch ID: R30349		Analysis Date:		9/23/2008 8:12:11 PM
Gasoline Range Organics (GRO)	0.4430	mg/L	0.050	88.6	80	115			
Surr: BFB	17.34	mg/L	0	86.7	59.9	122			
Sample ID: 0809181-01A MS		MS			Batch ID: R30349		Analysis Date:		9/23/2008 3:37:46 PM
Gasoline Range Organics (GRO)	0.4546	mg/L	0.050	90.9	80	115			
Surr: BFB	18.27	mg/L	0	91.3	59.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Sept 9, 2008

Work Order: 0809181

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0809181-01A MSD		<i>MSD</i>	Batch ID: R30349 Analysis Date: 9/23/2008 4:08:22 PM						
Benzene	6.054	µg/L	1.0	108	85.9	113	0.0991	27	
Toluene	42.40	µg/L	1.0	106	86.4	113	0.440	19	
Ethylbenzene	8.976	µg/L	1.0	112	83.5	118	0.290	10	
Xylenes, Total	52.30	µg/L	2.0	114	83.4	122	0.272	13	
Surr: 4-Bromofluorobenzene	19.12	µg/L	0	95.6	65.9	130	0	0	
Sample ID: 5ML RB		<i>MBLK</i>	Batch ID: R30349 Analysis Date: 9/23/2008 9:31:50 AM						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.71	µg/L	0	88.5	65.9	130			
Sample ID: LCS-BTEX 100NG		<i>LCS</i>	Batch ID: R30349 Analysis Date: 9/23/2008 8:42:42 PM						
Benzene	18.28	µg/L	1.0	91.4	85.9	113			
Toluene	17.89	µg/L	1.0	89.5	86.4	113			
Ethylbenzene	18.40	µg/L	1.0	92.0	83.5	118			
Xylenes, Total	55.93	µg/L	2.0	93.2	83.4	122			
Surr: 4-Bromofluorobenzene	17.65	µg/L	0	88.3	65.9	130			
Sample ID: 0809181-01A MS		<i>MS</i>	Batch ID: R30349 Analysis Date: 9/23/2008 3:37:46 PM						
Benzene	6.060	µg/L	1.0	108	85.9	113			
Toluene	42.21	µg/L	1.0	106	86.4	113			
Ethylbenzene	8.950	µg/L	1.0	112	83.5	118			
Xylenes, Total	52.16	µg/L	2.0	113	83.4	122			
Surr: 4-Bromofluorobenzene	18.19	µg/L	0	91.0	65.9	130			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

9/10/2008

Work Order Number 0809181

Received by: ARS

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

COVER LETTER

Monday, October 06, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX (505) 632-3911

RE: GAC Monthly Sept 9, 2008

Order No.: 0809181

Dear Cindy Hurtado:

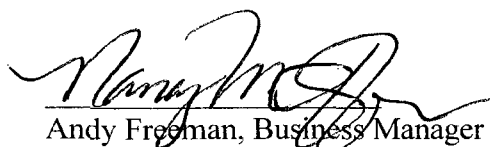
Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 9/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 06-Oct-08

CLIENT: Western Refining Southwest, Inc.
Project: GAC Monthly Sept 9, 2008
Lab Order: 0809181

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0809181-01A	GAC Lead	R30349	EPA Method 8021B: Volatiles	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	R30349	EPA Method 8015B: Gasoline Range	9/9/2008 9:30:00 AM
0809181-01A	GAC Lead	17076	EPA Method 8015B: Diesel Range	9/9/2008 9:30:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Oct-08

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GAC Lead

Lab Order: 0809181

Collection Date: 9/9/2008 9:30:00 AM

Project: GAC Monthly Sept 9, 2008

Date Received: 9/10/2008

Lab ID: 0809181-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	9/16/2008
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	9/16/2008
Surr: DNOP	131	58-140		%REC	1	9/16/2008
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	9/23/2008 1:02:41 PM
Surr: BFB	84.4	59.9-122		%REC	1	9/23/2008 1:02:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Toluene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Ethylbenzene	ND	1.0		µg/L	1	9/23/2008 1:02:41 PM
Xylenes, Total	ND	2.0		µg/L	1	9/23/2008 1:02:41 PM
Surr: 4-Bromofluorobenzene	84.1	65.9-130		%REC	1	9/23/2008 1:02:41 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

06-Oct-08

Lab Order: 0809181

Client: Western Refining Southwest, Inc.

Project: GAC Monthly Sept 9, 2008

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	QC Batch ID	Prep Date	Analysis Date
0809181-01A	GAC Lead	9/9/2008 9:30:00 AM	Aqueous	EPA Method 8015B: Diesel Range	17076	9/16/2008	9/16/2008
				EPA Method 8015B: Gasoline Range	R30349		9/23/2008
				EPA Method 8021B: Volatiles	R30349		9/23/2008

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Sept 9, 2008

Work Order: 0809181

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-17076		MBLK			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.303	mg/L	0	130	58	140			
Sample ID: LCS-17076		LCS			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	5.731	mg/L	1.0	115	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.6642	mg/L	0	133	58	140			
Sample ID: LCSD-17076		LCSD			Batch ID: 17076		Analysis Date:		9/16/2008
Diesel Range Organics (DRO)	5.941	mg/L	1.0	119	74	157			
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.6857	mg/L	0	137	58	140			

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0809181-01A MSD		MSD			Batch ID: R30349		Analysis Date:		9/23/2008 4:08:22 PM
Gasoline Range Organics (GRO)	0.4576	mg/L	0.050	91.5	80	115	0.658	8.39	
Surr: BFB	18.85	mg/L	0	94.3	59.9	122	0	0	
Sample ID: 5ML RB		MBLK			Batch ID: R30349		Analysis Date:		9/23/2008 9:31:50 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	17.46	mg/L	0	87.3	59.9	122			
Sample ID: LCS-GRO 2.5UG		LCS			Batch ID: R30349		Analysis Date:		9/23/2008 8:12:11 PM
Gasoline Range Organics (GRO)	0.4430	mg/L	0.050	88.6	80	115			
Surr: BFB	17.34	mg/L	0	86.7	59.9	122			
Sample ID: 0809181-01A MS		MS			Batch ID: R30349		Analysis Date:		9/23/2008 3:37:46 PM
Gasoline Range Organics (GRO)	0.4546	mg/L	0.050	90.9	80	115			
Surr: BFB	18.27	mg/L	0	91.3	59.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Monthly Sept 9, 2008

Work Order: 0809181

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0809181-01A MSD									
		MSD							
Batch ID:	R30349	Analysis Date:	9/23/2008 4:08:22 PM						
Benzene	6.054	µg/L	1.0	108	85.9	113	0.0991	27	
Toluene	42.40	µg/L	1.0	106	86.4	113	0.440	19	
Ethylbenzene	8.976	µg/L	1.0	112	83.5	118	0.290	10	
Xylenes, Total	52.30	µg/L	2.0	114	83.4	122	0.272	13	
Surr: 4-Bromofluorobenzene	19.12	µg/L	0	95.6	65.9	130	0	0	
Sample ID: 5ML RB									
		MBLK							
Batch ID:	R30349	Analysis Date:	9/23/2008 9:31:50 AM						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	17.71	µg/L	0	88.5	65.9	130			
Sample ID: LCS-BTEX 100NG									
		LCS							
Batch ID:	R30349	Analysis Date:	9/23/2008 8:42:42 PM						
Benzene	18.28	µg/L	1.0	91.4	85.9	113			
Toluene	17.89	µg/L	1.0	89.5	86.4	113			
Ethylbenzene	18.40	µg/L	1.0	92.0	83.5	118			
Xylenes, Total	55.93	µg/L	2.0	93.2	83.4	122			
Surr: 4-Bromofluorobenzene	17.65	µg/L	0	88.3	65.9	130			
Sample ID: 0809181-01A MS									
		MS							
Batch ID:	R30349	Analysis Date:	9/23/2008 3:37:46 PM						
Benzene	6.060	µg/L	1.0	108	85.9	113			
Toluene	42.21	µg/L	1.0	106	86.4	113			
Ethylbenzene	8.950	µg/L	1.0	112	83.5	118			
Xylenes, Total	52.16	µg/L	2.0	113	83.4	122			
Surr: 4-Bromofluorobenzene	18.19	µg/L	0	91.0	65.9	130			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

9/10/2008

Work Order Number 0809181

Received by: ARS

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

CHAIN-OF-CUSTODY RECORD

Client: Western Refinery (Blm'l)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date

Time

Matrix

Sample I.D. No.

Number/Volume

Preservative

HgCl₂

HNO₃

HEAL No.

9-9-08 9:30

H₂O GAC Lead

4-10A

HCl

0809181

1

Sampler: Bub

Sample Temperature: 3°

Project Name:

GAC Monthly Sept. 8, 2008

Project #:

Project Manager:

QA/QC Package:

Std ☐

Level 4 ☒

Other:

ANALYSIS REQUEST

BTEX + MTBE + 1,2,4-THF (8021) ☒

BTEX + MTBE + TPH (Gasoline Only) ☒

TPH Method 8015B (Gas/Diesel) ☒

TPH (Method 418.1) ☐

EDB (Method 504.1) ☐

EDC (Method 8021) ☐

8310 (PNA or PAH) ☐

RCRA 8 Metals ☐

Anions (F⁻, Cl⁻, NO₃⁻, PO₄³⁻, SO₄²⁻) ☐

8081 Pesticides / PCB's (8082) ☐

8260B (VOA) ☐

8270 (Semi-VOA) ☐

Air Bubbles or Headspace (Y or N) ☐

Remarks:

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

11:05 9/10/08

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

COVER LETTER

Thursday, September 04, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: GAC Aug 5, 2008

Order No.: 0808082

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 8/6/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 04-Sep-08

CLIENT: Western Refining Southwest, Inc.**Project:** GAC Aug 5, 2008**Lab Order:** 0808082**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0808082-01A	GAC Lead	R29664	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29730	EPA Method 8015B: Gasoline Range	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29730	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29726	EPA Method 8021B: Volatiles	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	R29726	EPA Method 8015B: Gasoline Range	8/5/2008 8:40:00 AM
0808082-01A	GAC Lead	16727	EPA Method 8015B: Diesel Range	8/5/2008 8:40:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 04-Sep-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0808082
Project: GAC Aug 5, 2008
Lab ID: 0808082-01

Client Sample ID: GAC Lead
Collection Date: 8/5/2008 8:40:00 AM
Date Received: 8/6/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	8/11/2008 7:59:14 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	8/11/2008 7:59:14 PM
Surr: DNOP	108	58-140		%REC	1	8/11/2008 7:59:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: DAM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/13/2008 11:03:29 AM
Surr: BFB	99.3	79.2-121		%REC	1	8/13/2008 11:03:29 AM
EPA METHOD 8021B: VOLATILES						Analyst: DAM
Benzene	ND	1.0		µg/L	1	8/13/2008 11:03:29 AM
Toluene	ND	1.0		µg/L	1	8/13/2008 11:03:29 AM
Ethylbenzene	ND	1.0		µg/L	1	8/13/2008 11:03:29 AM
Xylenes, Total	ND	2.0		µg/L	1	8/13/2008 11:03:29 AM
Surr: 4-Bromofluorobenzene	104	68.9-122		%REC	1	8/13/2008 11:03:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC Aug 5, 2008

Work Order: 0808082

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8015B: Diesel Range

Sample ID: MB-16727		MBLK			Batch ID: 16727		Analysis Date: 8/11/2008 3:21:20 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.048	mg/L	0	105	58	140		
Sample ID: LCS-16727		LCS			Batch ID: 16727		Analysis Date: 8/11/2008 3:56:17 PM	
Diesel Range Organics (DRO)	5.997	mg/L	1.0	120	74	157		
Surr: DNOP	0.5053	mg/L	0	101	58	140		
Sample ID: LCSD-16727		LCSD			Batch ID: 16727		Analysis Date: 8/11/2008 4:31:13 PM	
Diesel Range Organics (DRO)	5.243	mg/L	1.0	105	74	157	13.4	23
Surr: DNOP	0.5074	mg/L	0	101	58	140	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB		MBLK		Batch ID: R29664		Analysis Date: 8/7/2008 11:03:01 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				
Surr: BFB	19.19	mg/L	0	96.0	79.2	121	
Sample ID: 5ML RB		MBLK		Batch ID: R29730		Analysis Date: 8/12/2008 8:24:03 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				
Surr: BFB	20.93	mg/L	0	105	79.2	121	
Sample ID: B		MBLK		Batch ID: R29726		Analysis Date: 8/12/2008 10:25:03 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				
Surr: BFB	19.52	mg/L	0	97.6	79.2	121	
Sample ID: LCS GRO 2.5		LCS		Batch ID: R29664		Analysis Date: 8/7/2008 5:21:42 PM	
Gasoline Range Organics (GRO)	0.5214	mg/L	0.050	104	80	115	
Surr: BFB	20.63	mg/L	0	103	79.2	121	
Sample ID: GRO-LCS		LCS		Batch ID: R29726		Analysis Date: 8/11/2008 2:52:32 PM	
Gasoline Range Organics (GRO)	0.4682	mg/L	0.050	93.6	80	115	
Surr: BFB	19.56	mg/L	0	97.8	79.2	121	
Sample ID: GRO-LCS		LCS		Batch ID: R29730		Analysis Date: 8/13/2008 1:08:24 PM	
Gasoline Range Organics (GRO)	0.4454	mg/L	0.050	89.1	80	115	
Surr: BFB	19.51	mg/L	0	97.5	79.2	121	
Sample ID: GRO-LCSD		LCSD		Batch ID: R29726		Analysis Date: 8/11/2008 3:22:42 PM	
Gasoline Range Organics (GRO)	0.5110	mg/L	0.050	102	80	115	8.74 8.39 R
Surr: BFB	19.64	mg/L	0	98.2	79.2	121	0 0

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.

Project: GAC Aug 5, 2008

Work Order: 0808082

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 5ML RB		MBLK			Batch ID: R29664	Analysis Date: 8/7/2008 11:03:01 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	20.30	µg/L	0	102	68.9	122			
Sample ID: 5ML RB		MBLK			Batch ID: R29726	Analysis Date: 8/11/2008 10:19:21 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	24.30	µg/L	0	121	68.9	122			
Sample ID: 5ML RB		MBLK			Batch ID: R29730	Analysis Date: 8/12/2008 8:24:03 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	22.25	µg/L	0	111	68.9	122			
Sample ID: LCS-BTEX		LCS			Batch ID: R29726	Analysis Date: 8/11/2008 8:24:07 PM			
Benzene	20.03	µg/L	1.0	98.5	85.9	113			
Toluene	20.08	µg/L	1.0	100	86.4	113			
Ethylbenzene	20.47	µg/L	1.0	102	83.5	118			
Xylenes, Total	60.92	µg/L	2.0	102	83.4	122			
Surr: 4-Bromofluorobenzene	21.69	µg/L	0	108	68.9	122			
Sample ID: BTEX-LCS		LCS			Batch ID: R29730	Analysis Date: 8/13/2008 1:38:26 PM			
Benzene	19.57	µg/L	1.0	97.8	85.9	113			
Toluene	19.97	µg/L	1.0	99.8	86.4	113			
Ethylbenzene	20.00	µg/L	1.0	100	83.5	118			
Xylenes, Total	59.39	µg/L	2.0	99.0	83.4	122			
Surr: 4-Bromofluorobenzene	21.30	µg/L	0	107	68.9	122			
Sample ID: LCSD-BTEX		LCSD			Batch ID: R29726	Analysis Date: 8/11/2008 8:54:16 PM			
Benzene	19.48	µg/L	1.0	95.7	85.9	113	2.81	27	
Toluene	19.54	µg/L	1.0	97.7	86.4	113	2.70	19	
Ethylbenzene	19.91	µg/L	1.0	99.0	83.5	118	2.75	10	
Xylenes, Total	58.99	µg/L	2.0	98.3	83.4	122	3.23	13	
Surr: 4-Bromofluorobenzene	19.97	µg/L	0	99.8	68.9	122	0	0	

Qualifiers:

E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

8/6/2008

Work Order Number 0808082

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



COVER LETTER

Monday, July 28, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413
TEL: (505) 632-4161
FAX: (505) 632-3911
RE: GAC 3rd QTR 2008

Order No.: 0807063

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/3/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Project: GAC 3rd QTR 2008
Lab Order: 0807063

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0807063-01A	GAC Lead	16425	EPA Method 8015B: Diesel Range	7/2/2008 7:55:00 AM
0807063-01A	GAC Lead	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 7:55:00 AM
0807063-01A	GAC Lead	R29210	EPA Method 8021B: Volatiles	7/2/2008 7:55:00 AM
0807063-02A	GAC Lag	16425	EPA Method 8015B: Diesel Range	7/2/2008 8:00:00 AM
0807063-02A	GAC Lag	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 8:00:00 AM
0807063-02A	GAC Lag	R29210	EPA Method 8021B: Volatiles	7/2/2008 8:00:00 AM
0807063-03A	GAC Inlet	16425	EPA Method 8015B: Diesel Range	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29225	EPA Method 8021B: Volatiles	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29210	EPA Method 8015B: Gasoline Range	7/2/2008 8:05:00 AM
0807063-03A	GAC Inlet	R29210	EPA Method 8021B: Volatiles	7/2/2008 8:05:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.

Project: GAC 3rd QTR 2008

Lab Order: 0807063

CASE NARRATIVE

Analytical Comments for METHOD 8015GRO_W, SAMPLE 0807063-03A: Elevated surrogate due to matrix interference.

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807063
Project: GAC 3rd QTR 2008
Lab ID: 0807063-01

Client Sample ID: GAC Lead
Collection Date: 7/2/2008 7:55:00 AM
Date Received: 7/3/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/8/2008 9:59:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/8/2008 9:59:47 PM
Surr: DNOP	123	58-140		%REC	1	7/8/2008 9:59:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/5/2008 3:57:09 PM
Surr: BFB	95.1	79.2-121		%REC	1	7/5/2008 3:57:09 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	7/5/2008 3:57:09 PM
Toluene	ND	1.0		µg/L	1	7/5/2008 3:57:09 PM
Ethylbenzene	ND	1.0		µg/L	1	7/5/2008 3:57:09 PM
Xylenes, Total	ND	2.0		µg/L	1	7/5/2008 3:57:09 PM
Surr: 4-Bromofluorobenzene	101	68.9-122		%REC	1	7/5/2008 3:57:09 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

Page 1 of 3

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807063
Project: GAC 3rd QTR 2008
Lab ID: 0807063-02

Client Sample ID: GAC Lag
Collection Date: 7/2/2008 8:00:00 AM
Date Received: 7/3/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/8/2008 10:35:26 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/8/2008 10:35:26 PM
Surr: DNOP	120	58-140		%REC	1	7/8/2008 10:35:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/5/2008 4:27:15 PM
Surr: BFB	88.1	79.2-121		%REC	1	7/5/2008 4:27:15 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	7/5/2008 4:27:15 PM
Toluene	ND	1.0		µg/L	1	7/5/2008 4:27:15 PM
Ethylbenzene	ND	1.0		µg/L	1	7/5/2008 4:27:15 PM
Xylenes, Total	ND	2.0		µg/L	1	7/5/2008 4:27:15 PM
Surr: 4-Bromofluorobenzene	94.7	68.9-122		%REC	1	7/5/2008 4:27:15 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 28-Jul-08

CLIENT: Western Refining Southwest, Inc.
Lab Order: 0807063
Project: GAC 3rd QTR 2008
Lab ID: 0807063-03

Client Sample ID: GAC Inlet
Collection Date: 7/2/2008 8:05:00 AM
Date Received: 7/3/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/8/2008 11:11:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/8/2008 11:11:05 PM
Surr: DNOP	133	58-140		%REC	1	7/8/2008 11:11:05 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	20	0.50		mg/L	10	7/5/2008 4:59:58 PM
Surr: BFB	140	79.2-121	S	%REC	10	7/5/2008 4:59:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	12	10		µg/L	10	7/5/2008 4:59:58 PM
Toluene	ND	10		µg/L	10	7/5/2008 4:59:58 PM
Ethylbenzene	540	10		µg/L	10	7/5/2008 4:59:58 PM
Xylenes, Total	7300	200		µg/L	100	7/7/2008 11:26:50 AM
Surr: 4-Bromofluorobenzene	118	68.9-122		%REC	10	7/5/2008 4:59:58 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC 3rd QTR 2008

Work Order: 0807063

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-16425 MBLK Batch ID: 16425 Analysis Date: 7/8/2008 11:53:45 AM

Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	1.228	mg/L	0	123	58	140			

Sample ID: LCS-16425

LCS Batch ID: 16425 Analysis Date: 7/8/2008 12:29:26 PM

Diesel Range Organics (DRO)	4.951	mg/L	1.0	99.0	74	157			
Surr: DNOP	0.5924	mg/L	0	118	58	140			

Sample ID: LCSD-16425

LCSD Batch ID: 16425 Analysis Date: 7/8/2008 1:03:59 PM

Diesel Range Organics (DRO)	4.797	mg/L	1.0	95.9	74	157	3.16	23	
Surr: DNOP	0.5519	mg/L	0	110	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0807063-02A MSD MSD Batch ID: R29210 Analysis Date: 7/5/2008 10:03:24 PM

Gasoline Range Organics (GRO)	0.4768	mg/L	0.050	95.4	80	115	5.47	8.39	
Surr: BFB	19.52	mg/L	0	97.6	79.2	121	0	0	

Sample ID: 5ML RB

MBLK Batch ID: R29210 Analysis Date: 7/5/2008 10:23:35 AM

Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	18.06	mg/L	0	90.3	79.2	121			

Sample ID: 2.5UG GRO LCS

LCS Batch ID: R29210 Analysis Date: 7/5/2008 9:03:13 PM

Gasoline Range Organics (GRO)	0.5200	mg/L	0.050	104	80	115			
Surr: BFB	20.54	mg/L	0	103	79.2	121			

Sample ID: 0807063-02A MS

MS Batch ID: R29210 Analysis Date: 7/5/2008 9:33:14 PM

Gasoline Range Organics (GRO)	0.5036	mg/L	0.050	101	80	115			
Surr: BFB	19.46	mg/L	0	97.3	79.2	121			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC 3rd QTR 2008

Work Order: 0807063

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0807063-01A MSD		<i>MSD</i>			Batch ID: R29210	Analysis Date: 7/6/2008 12:03:29 AM			
Benzene	21.07	µg/L	1.0	105	85.9	113	1.64	27	
Toluene	21.31	µg/L	1.0	107	86.4	113	3.57	19	
Ethylbenzene	21.93	µg/L	1.0	108	83.5	118	3.46	10	
Xylenes, Total	64.64	µg/L	2.0	107	83.4	122	3.71	13	
Surr: 4-Bromofluorobenzene	19.70	µg/L	0	98.5	68.9	122	0	0	
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R29210	Analysis Date: 7/5/2008 10:23:35 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.36	µg/L	0	96.8	68.9	122			
Sample ID: 5ML RB-II		<i>MBLK</i>			Batch ID: R29210	Analysis Date: 7/6/2008 9:09:16 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	19.72	µg/L	0	98.6	68.9	122			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R29210	Analysis Date: 7/6/2008 12:33:26 AM			
Benzene	21.12	µg/L	1.0	106	85.9	113			
Toluene	21.40	µg/L	1.0	107	86.4	113			
Ethylbenzene	21.60	µg/L	1.0	108	83.5	118			
Xylenes, Total	64.42	µg/L	2.0	107	83.4	122			
Surr: 4-Bromofluorobenzene	20.51	µg/L	0	103	68.9	122			
Sample ID: 100NG BTEX LCS-II		<i>LCS</i>			Batch ID: R29210	Analysis Date: 7/6/2008 2:43:40 PM			
Benzene	21.17	µg/L	1.0	106	85.9	113			
Toluene	21.45	µg/L	1.0	107	86.4	113			
Ethylbenzene	21.95	µg/L	1.0	110	83.5	118			
Xylenes, Total	65.27	µg/L	2.0	109	83.4	122			
Surr: 4-Bromofluorobenzene	20.90	µg/L	0	105	68.9	122			
Sample ID: 0807063-01A MS		<i>MS</i>			Batch ID: R29210	Analysis Date: 7/5/2008 11:33:31 PM			
Benzene	21.41	µg/L	1.0	106	85.9	113			
Toluene	22.09	µg/L	1.0	110	86.4	113			
Ethylbenzene	22.70	µg/L	1.0	112	83.5	118			
Xylenes, Total	67.09	µg/L	2.0	111	83.4	122			
Surr: 4-Bromofluorobenzene	20.71	µg/L	0	104	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING SOUT

Date Received:

7/3/2008

Work Order Number 0807063

Received by: TLS

Checklist completed by:

pmys Shomin
Signature

7/3/08
Date

Sample ID labels checked by:

TS
Initials

Matrix:

Carrier name UPS

- | | | | | |
|---|---|---|---|--------------------------------------|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | |
| Custody seals intact on shipping container/cooler? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> | Not Shipped <input type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | | |
| Water - VOA vials have zero headspace? | No VOA vials submitted <input type="checkbox"/> | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Water - Preservation labels on bottle and cap match? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> | |

Container/Temp Blank temperature?

6°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

COVER LETTER

Tuesday, June 24, 2008

Cindy Hurtado
Western Refining Southwest, Inc.
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161

FAX (505) 632-3911

RE: GAC June 2008

Order No.: 0806140

Dear Cindy Hurtado:

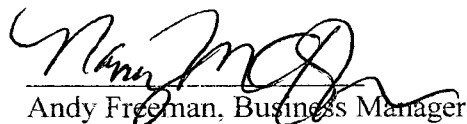
Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/10/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 24-Jun-08

CLIENT: Western Refining Southwest, Inc.**Project:** GAC June 2008**Lab Order:** 0806140**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0806140-01A	GAC-Lead	R28951	EPA Method 8015B: Gasoline Range	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	R28923	EPA Method 8021B: Volatiles	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	R28923	EPA Method 8015B: Gasoline Range	6/9/2008 1:00:00 PM
0806140-01A	GAC-Lead	16174	EPA Method 8015B: Diesel Range	6/9/2008 1:00:00 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 24-Jun-08

CLIENT: Western Refining Southwest, Inc.

Client Sample ID: GAC-Lead

Lab Order: 0806140

Collection Date: 6/9/2008 1:00:00 PM

Project: GAC June 2008

Date Received: 6/10/2008

Lab ID: 0806140-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/12/2008 4:23:29 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	6/12/2008 4:23:29 PM
Surr: DNOP	93.3	58-140		%REC	1	6/12/2008 4:23:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	6/16/2008 1:46:57 PM
Surr: BFB	91.3	79.2-121		%REC	1	6/16/2008 1:46:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	6/13/2008 7:23:18 PM
Toluene	ND	1.0		µg/L	1	6/13/2008 7:23:18 PM
Ethylbenzene	ND	1.0		µg/L	1	6/13/2008 7:23:18 PM
Xylenes, Total	ND	2.0		µg/L	1	6/13/2008 7:23:18 PM
Surr: 4-Bromofluorobenzene	76.0	68.9-122		%REC	1	6/13/2008 7:23:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
Project: GAC June 2008

Work Order: 0806140

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range									
Sample ID: MB-16174		<i>MBLK</i>							
					Batch ID:	16174	Analysis Date:	6/12/2008 9:01:23 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0						
Motor Oil Range Organics (MRO)	ND	mg/L	5.0						
Surr: DNOP	0.9672	mg/L	0	96.7	58	140			
Sample ID: LCS-16174		<i>LCS</i>							
					Batch ID:	16174	Analysis Date:	6/12/2008 9:35:29 AM	
Diesel Range Organics (DRO)	4.450	mg/L	1.0	89.0	74	157			
Surr: DNOP	0.5076	mg/L	0	102	58	140			
Sample ID: LCSD-16174		<i>LCSD</i>							
					Batch ID:	16174	Analysis Date:	6/12/2008 10:09:39 AM	
Diesel Range Organics (DRO)	4.331	mg/L	1.0	86.6	74	157	2.72	23	
Surr: DNOP	0.5068	mg/L	0	101	58	140	0	0	

Method: EPA Method 8015B: Gasoline Range									
Sample ID: 5ML RB		<i>MBLK</i>							
					Batch ID:	R28923	Analysis Date:	6/13/2008 8:45:18 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050						
Surr: BFB	17.04	mg/L	0	85.2	79.2	121			
Sample ID: 2.5UG GRO LCS		<i>LCS</i>							
					Batch ID:	R28923	Analysis Date:	6/13/2008 8:53:31 PM	
Gasoline Range Organics (GRO)	0.4958	mg/L	0.050	99.2	80	115			
Surr: BFB	19.25	mg/L	0	96.3	79.2	121			
Sample ID: 2.5UG GRO LCSD		<i>LCSD</i>							
					Batch ID:	R28923	Analysis Date:	6/13/2008 9:23:36 PM	
Gasoline Range Organics (GRO)	0.4924	mg/L	0.050	98.5	80	115	0.688	8.39	
Surr: BFB	19.20	mg/L	0	96.0	79.2	121	0	0	
Sample ID: 0806158-07A DUP		<i>DUP</i>							
					Batch ID:	R28923	Analysis Date:	6/14/2008 3:57:14 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050				0	20	
Surr: BFB	17.14	mg/L	0	85.7	84.5	129	0	0	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Inc.
 Project: GAC June 2008

Work Order: 0806140

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles									
Sample ID: 0806140-01A MSD		<i>MSD</i>			Batch ID: R28923	Analysis Date: 6/13/2008 8:23:27 PM			
Benzene	20.84	µg/L	1.0	104	85.9	113	1.89	27	
Toluene	21.24	µg/L	1.0	106	86.4	113	1.74	19	
Ethylbenzene	21.84	µg/L	1.0	108	83.5	118	2.00	10	
Xylenes, Total	65.24	µg/L	2.0	108	83.4	122	1.33	13	
Surr: 4-Bromofluorobenzene	20.21	µg/L	0	101	68.9	122	0	0	
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R28923	Analysis Date: 6/13/2008 8:45:18 AM			
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Surr: 4-Bromofluorobenzene	16.82	µg/L	0	84.1	68.9	122			
Sample ID: 5ML RB		<i>MBLK</i>			Batch ID: R28951	Analysis Date: 6/16/2008 9:02:24 AM			
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5						
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
Surr: 4-Bromofluorobenzene	16.79	µg/L	0	84.0	68.9	122			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R28923	Analysis Date: 6/13/2008 10:23:32 PM			
Benzene	20.54	µg/L	1.0	103	85.9	113			
Toluene	21.46	µg/L	1.0	107	86.4	113			
Ethylbenzene	21.38	µg/L	1.0	107	83.5	118			
Xylenes, Total	64.43	µg/L	2.0	107	83.4	122			
Surr: 4-Bromofluorobenzene	20.10	µg/L	0	101	68.9	122			
Sample ID: 100NG BTEX LCS		<i>LCS</i>			Batch ID: R28951	Analysis Date: 6/17/2008 4:50:16 AM			
Methyl tert-butyl ether (MTBE)	19.58	µg/L	2.5	97.9	51.2	138			
Benzene	21.01	µg/L	1.0	105	85.9	113			
Toluene	21.59	µg/L	1.0	108	86.4	113			
Ethylbenzene	21.53	µg/L	1.0	108	83.5	118			
Xylenes, Total	65.34	µg/L	2.0	109	83.4	122			
1,2,4-Trimethylbenzene	22.25	µg/L	1.0	111	83.5	115			
1,3,5-Trimethylbenzene	21.07	µg/L	1.0	105	85.2	113			
Surr: 4-Bromofluorobenzene	17.57	µg/L	0	87.9	68.9	122			
Sample ID: 0806140-01A MS		<i>MS</i>			Batch ID: R28923	Analysis Date: 6/13/2008 7:53:22 PM			
Benzene	20.45	µg/L	1.0	102	85.9	113			
Toluene	20.88	µg/L	1.0	104	86.4	113			
Ethylbenzene	21.41	µg/L	1.0	106	83.5	118			
Xylenes, Total	64.38	µg/L	2.0	107	83.4	122			
Surr: 4-Bromofluorobenzene	17.79	µg/L	0	89.0	68.9	122			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

6/10/2008

Work Order Number 0806140

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

6°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action



COVER LETTER

Wednesday, May 14, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GAC May 2008

Order No.: 0805078

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 5/6/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 14-May-08

CLIENT: San Juan Refining
Project: GAC May 2008
Lab Order: 0805078

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0805078-01A	GAC-Lead	15876	EPA Method 8015B: Diesel Range	5/5/2008 11:10:00 AM
0805078-01A	GAC-Lead	R28413	EPA Method 8015B: Gasoline Range	5/5/2008 11:10:00 AM
0805078-01A	GAC-Lead	R28413	EPA Method 8021B: Volatiles	5/5/2008 11:10:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 14-May-08

CLIENT: San Juan Refining
Lab Order: 0805078
Project: GAC May 2008
Lab ID: 0805078-01

Client Sample ID: GAC-Lead
Collection Date: 5/5/2008 11:10:00 AM
Date Received: 5/6/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/9/2008 2:06:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/9/2008 2:06:25 PM
Surr: DNOP	104	58-140		%REC	1	5/9/2008 2:06:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	5/6/2008 11:27:50 PM
Surr: BFB	94.3	79.2-121		%REC	1	5/6/2008 11:27:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	5/6/2008 11:27:50 PM
Toluene	ND	1.0		µg/L	1	5/6/2008 11:27:50 PM
Ethylbenzene	ND	1.0		µg/L	1	5/6/2008 11:27:50 PM
Xylenes, Total	ND	2.0		µg/L	1	5/6/2008 11:27:50 PM
Surr: 4-Bromofluorobenzene	78.3	68.9-122		%REC	1	5/6/2008 11:27:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: GAC May 2008

Work Order: 0805078

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-15876		MBLK			Batch ID: 15876		Analysis Date: 5/9/2008 12:24:06 PM	
Diesel Range Organics (DRO)	ND	mg/L	1.0					
Motor Oil Range Organics (MRO)	ND	mg/L	5.0					
Surr: DNOP	1.202	mg/L	0	120	58	140		
Sample ID: LCS-15876		LCS			Batch ID: 15876		Analysis Date: 5/9/2008 12:58:12 PM	
Diesel Range Organics (DRO)	6.239	mg/L	1.0	125	74	157		
Surr: DNOP	0.5759	mg/L	0	115	58	140		
Sample ID: LCSD-15876		LCSD			Batch ID: 15876		Analysis Date: 5/9/2008 1:32:19 PM	
Diesel Range Organics (DRO)	6.346	mg/L	1.0	127	74	157	1.70	23
Surr: DNOP	0.6089	mg/L	0	122	58	140	0	0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 0805078-01A MSD		MSD			Batch ID: R28413		Analysis Date: 5/7/2008 12:28:08 AM	
Gasoline Range Organics (GRO)	0.4792	mg/L	0.050	95.8	80	115	0.796	8.39
Surr: BFB	19.87	mg/L	0	99.4	79.2	121	0	0
Sample ID: 5ML RB		MBLK			Batch ID: R28413		Analysis Date: 5/6/2008 8:45:47 AM	
Gasoline Range Organics (GRO)	ND	mg/L	0.050					
Surr: BFB	20.77	mg/L	0	104	79.2	121		
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R28413		Analysis Date: 5/7/2008 12:58:17 AM	
Gasoline Range Organics (GRO)	0.4874	mg/L	0.050	97.5	80	115		
Surr: BFB	21.79	mg/L	0	109	79.2	121		
Sample ID: 0805078-01A MS		MS			Batch ID: R28413		Analysis Date: 5/6/2008 11:57:56 PM	
Gasoline Range Organics (GRO)	0.4754	mg/L	0.050	95.1	80	115		
Surr: BFB	20.35	mg/L	0	102	79.2	121		

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB		MBLK			Batch ID: R28413	Analysis Date: 5/6/2008 8:45:47 AM
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Xylenes, Total	ND	µg/L	2.0			
Surr: 4-Bromofluorobenzene	17.57	µg/L	0	87.8	68.9	122
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R28413	Analysis Date: 5/6/2008 5:23:36 PM
Benzene	20.42	µg/L	1.0	102	85.9	113
Toluene	20.69	µg/L	1.0	103	86.4	113
Ethylbenzene	20.34	µg/L	1.0	102	83.5	118
Xylenes, Total	60.61	µg/L	2.0	101	83.4	122
Surr: 4-Bromofluorobenzene	16.75	µg/L	0	83.7	68.9	122

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

5/6/2008

Work Order Number 0805078

Received by: ARS

Checklist completed by:

Jamye Shomin
Signature

Sample ID labels checked by:

ARS
Initials

5/6/08
Date

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

5°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record

Client: SAN JUAN REFINING

(WESTERN REFINING BLOOMFIELD)

Address: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

email of Fax: 505-632-3911

QA/QC Package:

☐ Standard ☒ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Date _____

Time _____

Sample Request ID _____

5-5-08 11:10 GAC-Lead

Container Type and #

4-VOA

Preservative Type

HCl

HEAL No.

0805078

-1

Sampler: Bob

On Ice: ☒ Yes ☐ No

Sample Temperature: 5

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

GAC May 2008

Project #:

Project Manager:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

<input checked="" type="checkbox"/> BTEX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/> TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
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Remarks:

Received by:

940 5/6/08

Received by:

Relinquished by: Cindy Hurtado

Date: 5-05-08

Time: 1pm

Relinquished by:

Time:

COVER LETTER

Tuesday, April 22, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GAC 2nd QTR-2008

Order No.: 0804186

Dear Cindy Hurtado:

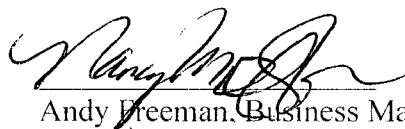
Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/16/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-08

CLIENT: San Juan Refining
Project: GAC 2nd QTR-2008
Lab Order: 0804186

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Batch ID	Test Name	Collection Date
0804186-01A	GAC Inlet	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:20:00 AM
0804186-01A	GAC Inlet	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:20:00 AM
0804186-01A	GAC Inlet	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:20:00 AM
0804186-02A	GAC Lead	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:10:00 AM
0804186-02A	GAC Lead	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:10:00 AM
0804186-02A	GAC Lead	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:10:00 AM
0804186-03A	GAC LAG	15671	EPA Method 8015B: Diesel Range	4/15/2008 11:00:00 AM
0804186-03A	GAC LAG	R28165	EPA Method 8021B: Volatiles	4/15/2008 11:00:00 AM
0804186-03A	GAC LAG	R28164	EPA Method 8015B: Gasoline Range	4/15/2008 11:00:00 AM

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-08

CLIENT: San Juan Refining
Lab Order: 0804186
Project: GAC 2nd QTR-2008
Lab ID: 0804186-01

Client Sample ID: GAC Inlet
Collection Date: 4/15/2008 11:20:00 AM
Date Received: 4/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/19/2008 6:22:46 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/19/2008 6:22:46 AM
Surr: DNOP	99.6	58-140		%REC	1	4/19/2008 6:22:46 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	8.4	0.50		mg/L	10	4/19/2008 6:28:25 PM
Surr: BFB	103	79.2-121		%REC	10	4/19/2008 6:28:25 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	4/19/2008 6:28:25 PM
Benzene	55	10		µg/L	10	4/19/2008 6:28:25 PM
Toluene	ND	10		µg/L	10	4/19/2008 6:28:25 PM
Ethylbenzene	380	10		µg/L	10	4/19/2008 6:28:25 PM
Xylenes, Total	1900	20		µg/L	10	4/19/2008 6:28:25 PM
Surr: 4-Bromofluorobenzene	89.0	68.9-122		%REC	10	4/19/2008 6:28:25 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-08

CLIENT: San Juan Refining
Lab Order: 0804186
Project: GAC 2nd QTR-2008
Lab ID: 0804186-02

Client Sample ID: GAC Lead
Collection Date: 4/15/2008 11:10:00 AM
Date Received: 4/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/19/2008 6:56:00 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/19/2008 6:56:00 AM
Surr: DNOP	110	58-140		%REC	1	4/19/2008 6:56:00 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/19/2008 7:28:31 PM
Surr: BFB	107	79.2-121		%REC	1	4/19/2008 7:28:31 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/19/2008 7:28:31 PM
Benzene	ND	1.0		µg/L	1	4/19/2008 7:28:31 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 7:28:31 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 7:28:31 PM
Xylenes, Total	ND	2.0		µg/L	1	4/19/2008 7:28:31 PM
Surr: 4-Bromofluorobenzene	90.8	68.9-122		%REC	1	4/19/2008 7:28:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Apr-08

CLIENT: San Juan Refining
Lab Order: 0804186
Project: GAC 2nd QTR-2008
Lab ID: 0804186-03

Client Sample ID: GAC LAG
Collection Date: 4/15/2008 11:00:00 AM
Date Received: 4/16/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/19/2008 7:29:14 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/19/2008 7:29:14 AM
Surr: DNOP	107	58-140		%REC	1	4/19/2008 7:29:14 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/19/2008 7:58:35 PM
Surr: BFB	98.4	79.2-121		%REC	1	4/19/2008 7:58:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	4/19/2008 7:58:35 PM
Benzene	ND	1.0		µg/L	1	4/19/2008 7:58:35 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 7:58:35 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 7:58:35 PM
Xylenes, Total	ND	2.0		µg/L	1	4/19/2008 7:58:35 PM
Surr: 4-Bromofluorobenzene	82.2	68.9-122		%REC	1	4/19/2008 7:58:35 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: GAC 2nd QTR-2008

Work Order: 080418

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-15671		MBLK		Batch ID: 15671		Analysis Date: 4/17/2008 10:07:09 AM	
Diesel Range Organics (DRO)	ND	mg/L	1.0				
Motor Oil Range Organics (MRO)	ND	mg/L	5.0				
Surr: DNOP	1.196	mg/L	0	120	58	140	
Sample ID: LCS-15671		LCS		Batch ID: 15671		Analysis Date: 4/17/2008 10:41:35 AM	
Diesel Range Organics (DRO)	6.379	mg/L	1.0	128	74	157	
Surr: DNOP	0.5661	mg/L	0	113	58	140	
Sample ID: LCSD-15671		LCSD		Batch ID: 15671		Analysis Date: 4/17/2008 11:11:51 AM	
Diesel Range Organics (DRO)	6.888	mg/L	1.0	138	74	157	7.67 23
Surr: DNOP	0.6145	mg/L	0	123	58	140	0 0

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB		MBLK			Batch ID: R28164	Analysis Date: 4/18/2008 8:42:39 AM
Gasoline Range Organics (GRO)	ND	mg/L	0.050			
Surr: BFB	21.04	mg/L	0	105	79.2	121
Sample ID: 2.5UG GRO LCS		LCS			Batch ID: R28164	Analysis Date: 4/19/2008 9:28:50 PM
Gasoline Range Organics (GRO)	0.5020	mg/L	0.050	100	80	115
Surr: BFB	20.77	mg/L	0	104	79.2	121

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB		MBLK			Batch ID: R28165	Analysis Date: 4/18/2008 8:42:39 AM
Methyl tert-butyl ether (MTBE)	ND	µg/L	2.5			
Benzene	ND	µg/L	1.0			
Toluene	ND	µg/L	1.0			
Ethylbenzene	ND	µg/L	1.0			
Xylenes, Total	ND	µg/L	2.0			
Surr: 4-Bromofluorobenzene	18.17	µg/L	0	90.9	68.9	122
Sample ID: 100NG BTEX LCS		LCS			Batch ID: R28165	Analysis Date: 4/18/2008 3:51:21 PM
Methyl tert-butyl ether (MTBE)	21.84	µg/L	2.5	109	51.2	138
Benzene	20.58	µg/L	1.0	103	85.9	113
Toluene	20.34	µg/L	1.0	102	86.4	113
Ethylbenzene	20.42	µg/L	1.0	102	83.5	118
Xylenes, Total	61.03	µg/L	2.0	102	83.4	122
Surr: 4-Bromofluorobenzene	17.93	µg/L	0	89.7	68.9	122

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

4/16/2008

Work Order Number 0804186

Received by: ARS

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

2°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

COVER LETTER

Monday, March 17, 2008

Cindy Hurtado
San Juan Refining
#50 CR 4990
Bloomfield, NM 87413

TEL: (505) 632-4161
FAX (505) 632-3911

RE: GAC-1st Qtr-2008

Order No.: 0803059

Dear Cindy Hurtado:

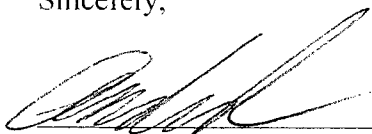
Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 3/7/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001



Hall Environmental Analysis Laboratory, Inc.

Date: 17-Mar-08

CLIENT: San Juan Refining
 Lab Order: 0803059
 Project: GAC-1st Qtr-2008
 Lab ID: 0803059-01

Client Sample ID: GAC Inlet
 Collection Date: 3/6/2008 10:30:00 AM
 Date Received: 3/7/2008
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 9:40:40 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 9:40:40 AM
Surr: DNOP	109	58-140		%REC	1	3/12/2008 9:40:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	7.0	0.50		mg/L	10	3/10/2008 2:19:18 PM
Surr: BFB	121	79.2-121		%REC	10	3/10/2008 2:19:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	25		µg/L	10	3/10/2008 2:19:18 PM
Benzene	70	10		µg/L	10	3/10/2008 2:19:18 PM
Toluene	ND	10		µg/L	10	3/10/2008 2:19:18 PM
Ethylbenzene	430	10		µg/L	10	3/10/2008 2:19:18 PM
Xylenes, Total	1000	20		µg/L	10	3/10/2008 2:19:18 PM
Surr: 4-Bromofluorobenzene	99.3	68.9-122		%REC	10	3/10/2008 2:19:18 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803059
Project: GAC-1st Qtr-2008
Lab ID: 0803059-02

Client Sample ID: GAC Lead
Collection Date: 3/6/2008 10:40:00 AM
Date Received: 3/7/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 10:15:38 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 10:15:38 AM
Surr: DNOP	115	58-140		%REC	1	3/12/2008 10:15:38 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/10/2008 3:19:43 PM
Surr: BFB	108	79.2-121		%REC	1	3/10/2008 3:19:43 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/10/2008 3:19:43 PM
Benzene	ND	1.0		µg/L	1	3/10/2008 3:19:43 PM
Toluene	ND	1.0		µg/L	1	3/10/2008 3:19:43 PM
Ethylbenzene	ND	1.0		µg/L	1	3/10/2008 3:19:43 PM
Xylenes, Total	ND	2.0		µg/L	1	3/10/2008 3:19:43 PM
Surr: 4-Bromofluorobenzene	86.9	68.9-122		%REC	1	3/10/2008 3:19:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: 17-Mar-08

CLIENT: San Juan Refining
Lab Order: 0803059
Project: GAC-1st Qtr-2008
Lab ID: 0803059-03

Client Sample ID: GAC LAG
Collection Date: 3/6/2008 10:50:00 AM
Date Received: 3/7/2008
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: SCC
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	3/12/2008 10:50:22 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	3/12/2008 10:50:22 AM
Surr: DNOP	103	58-140		%REC	1	3/12/2008 10:50:22 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	3/10/2008 3:49:57 PM
Surr: BFB	105	79.2-121		%REC	1	3/10/2008 3:49:57 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/10/2008 3:49:57 PM
Benzene	ND	1.0		µg/L	1	3/10/2008 3:49:57 PM
Toluene	ND	1.0		µg/L	1	3/10/2008 3:49:57 PM
Ethylbenzene	ND	1.0		µg/L	1	3/10/2008 3:49:57 PM
Xylenes, Total	ND	2.0		µg/L	1	3/10/2008 3:49:57 PM
Surr: 4-Bromofluorobenzene	83.8	68.9-122		%REC	1	3/10/2008 3:49:57 PM

Qualifiers: * Value exceeds Maximum Contaminant Level
E Value above quantitation range
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
RL Reporting Limit

QA/QC SUMMARY REPORT

Client: San Juan Refining
Project: GAC-1st Qtr-2008

Work Order: 0803059

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8015B: Diesel Range

Sample ID: MB-15344 MBLK Batch ID: 15344 Analysis Date: 3/12/2008 7:55:47 AM

Diesel Range Organics (DRO) ND mg/L 1.0

Motor Oil Range Organics (MRO) ND mg/L 5.0

Sample ID: LCS-15344 LCS Batch ID: 15344 Analysis Date: 3/12/2008 8:30:48 AM

Diesel Range Organics (DRO) 4.930 mg/L 1.0 98.6 74 157

Sample ID: LCSD-15344 LCSD Batch ID: 15344 Analysis Date: 3/12/2008 9:05:44 AM

Diesel Range Organics (DRO) 5.189 mg/L 1.0 104 74 157 5.12 23

Method: EPA Method 8015B: Gasoline Range

Sample ID: 5ML RB MBLK Batch ID: R27639 Analysis Date: 3/10/2008 8:11:16 AM

Gasoline Range Organics (GRO) ND mg/L 0.050

Sample ID: 2.5UG GRO LCS LCS Batch ID: R27639 Analysis Date: 3/10/2008 8:52:01 PM

Gasoline Range Organics (GRO) 0.4614 mg/L 0.050 92.3 80 115

Sample ID: 2.5UG GRO LCSD LCSD Batch ID: R27639 Analysis Date: 3/10/2008 9:22:09 PM

Gasoline Range Organics (GRO) 0.4836 mg/L 0.050 96.7 80 115 4.70 8.39

Method: EPA Method 8021B: Volatiles

Sample ID: 5ML RB MBLK Batch ID: R27639 Analysis Date: 3/10/2008 8:11:16 AM

Methyl tert-butyl ether (MTBE) ND µg/L 2.5

Benzene ND µg/L 1.0

Toluene ND µg/L 1.0

Ethylbenzene ND µg/L 1.0

Xylenes, Total ND µg/L 2.0

Sample ID: 100NG BTEX LCS LCS Batch ID: R27639 Analysis Date: 3/10/2008 10:52:31 PM

Methyl tert-butyl ether (MTBE) 17.26 µg/L 2.5 86.3 51.2 138

Benzene 17.66 µg/L 1.0 88.3 85.9 113

Toluene 17.95 µg/L 1.0 89.8 86.4 113

Ethylbenzene 17.72 µg/L 1.0 88.0 83.5 118

Xylenes, Total 53.24 µg/L 2.0 88.7 83.4 122

Sample ID: 100NG BTEX LCSD LCSD Batch ID: R27639 Analysis Date: 3/10/2008 11:22:45 PM

Methyl tert-butyl ether (MTBE) 17.13 µg/L 2.5 85.6 51.2 138 0.744 28

Benzene 17.98 µg/L 1.0 89.9 85.9 113 1.80 27

Toluene 18.01 µg/L 1.0 90.1 86.4 113 0.356 19

Ethylbenzene 17.95 µg/L 1.0 89.2 83.5 118 1.32 10

Xylenes, Total 54.33 µg/L 2.0 90.5 83.4 122 2.02 13

Qualifiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SJR

Date Received:

3/7/2008

Work Order Number 0803059

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name UPS

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☒

No ☐

Not Present ☐

Not Shipped ☐

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☒

No ☐

Water - Preservation labels on bottle and cap match?

Yes ☐

No ☐

N/A ☒

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

5°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

