

GW - 032

C-141s



GALLUP

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2012 FEB -9 A 10: 17

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NYSE

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2012 FEB -9

February 7, 2012

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
1301 Siler Road, Building B
Santa Fe, NM 87507
Attn: Ms Kristen Van Horn

New Mexico Energy, Minerals, and Natural Resources
Oil Conservation Division (OCD)
1220 South St. Francis Drive
Santa Fe, NM 87505
✓ Attn: Mr. Carl J. Chavez

Re: Tank (T-35) Overflow Cleanup and Final (C-141) Submittal

Dear Ms Van Horn and Mr. Chavez:

Western Refining Company - Gallup Refinery is submitting the following report as a final to the Tank 35 (T-35) cleanup of a release that occurred on October 2, 2011. Western Refining (Gallup Refinery) previously submitted an initial C-141 along with the Confirmation Soil Sampling Plan as presented in the letter that was addressed to the Agency of November 10, 2011. The initial plan addresses the soil excavation and removal of contamination from the Tank 35 (T-35) area. Due to the area and processes involved, it was decided to manage this excavated soil as a Hazardous Waste and to dispose of this material off-site to an approved TSD Facility.

Approximately one inch of visually stained soil was first removed prior to conducting the initial Confirmation cleanup and sampling assessment requirements. A third party Environmental Consulting firm (Trihydro Corporation) was called out on October 28, 2011 in order to perform visual assessment and extent of the contaminated area. As a result of this initial assessment, Trihydro identified five distinct locations, (T-35-1, T-35-2, T-35-3, T-35-4, and T-35-5), as shown in the map from the November 10, 2011 (Confirmation Sampling Plan) report. Each of the five locations that were identified were also staked out for sampling.

In December 2011, Trihydro was called back to perform the initial sampling in accordance with the Confirmation Sampling Plan. On December 15, 2011, Trihydro Consultants began sampling at these five locations. The laboratory analysis was conducted by Hall Environmental Laboratory using Method 8260 (VOC, Volatile Organic Compounds), Method 8270 (Semi volatile Organic compounds), Method 8015B (Diesel and Gasoline Range Organics (DRO/GRO)), and RCRA Metals. One sample was taken at each of the five locations. The analytical report was received on December 27, 2011. Upon receipt of the analytical data on December 27, it was noticed that all of the parameters were Total Values. Therefore, Western requested additional testing for TCLP for Methods 8260, 8270, and RCRA 8 Metals. Also, Western requested that an RCI to be conducted. The final Analysis (Order #: 1112721) for the initial sampling is enclosed. The results of this analysis indicated a high value of TPH in areas T-35-1 and T-35-5, in particular, DRO and MRO. Based on this evaluation, additional remediation would be required in these two areas. Based on the analysis contractors were given the authorization to replace the excavated soil from T-35-2, T-35-3, and T-35-4 areas with clean soil and gravel.

Contract personnel were given permission to conduct additional remediation in the two areas of question, i.e. around Tank 35 (T-35-1 and T-35-5). Contractors were to remove about 1 to 2 inches of additional soil in area T-35-1 and about 2 to 3 inches of additional soil in area T-35-5. Once contractors finished the remediation from these two areas, additional sampling was

conducted using the same criteria as performed previously. On January 5, additional sampling was conducted in these two locations (T-35-1 and T-35-5) was sent to Hall Laboratory for analysis. The final Analysis (Order #: 1201183) for the additional confirmation sampling was received on January 13, 2012. Again upon receipt of the analysis as mentioned above, Western requested additional analysis on January 16, 2012. A modified report that is attached was received with the additional testing in the final report of January 24, 2012. Based on the analysis contractors were given the authorization to replace the excavated soil from T-35-1 and T-35-5 areas with clean soil and gravel.

If you should require additional information, please feel free to contact me at (505) 722-0258.

Sincerely,



Beck Larsen, CHMM/REM
Western Refining-Southwest (Gallup Refinery)
Office: (505) 722-0258
Cell: (505) 862-1749

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Western Refining	Contact: Beck Larsen	
Address I-40 / Exit 39, Jamestown, NM 87347	Telephone No: (505) 722-0258	
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery	
Surface Owner:	Mineral Owner:	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 28	Township 15 N	Range 15 W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35° 29' 022" Longitude 108° 24' 024"

NATURE OF RELEASE

Type of Release 13 bbls (oil) / 1240 bbls (process and stormwater mixture)	Volume of Release Estimated 13 bbls (oil)	Volume Recovered 1240 bbls (stormwater and oily process water)/ 13 bbls (oil)
Source of Release: Tank (T-35) Overflow	Date and Hour of Occurrence 10/02/2011; 1540 hrs (3:40 PM)	Date and Hour of Discovery 10/02/2011; 1540 hrs (3:40 PM)
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ruth Horowitz, NMED HWB (telephone call); Kristen Van Horn, NMED HWB (telephone call) Brandon Powell, NMED HWB (telephone call) Carl J Chavez, OCD (telephone call)	
By Whom? Loretta Morgan	Date and Hour 10/3/201; 1323 hrs (1:23 PM) (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	


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

Describe Cause of Problem and Remedial Action Taken. * ☐ The cause was previously described in the C-141 (Initial Report) of 10/26/2011. The initial cleanup around T-35 began via vacuum truck that removed the stormwater and oily process water surrounding T-35. Once the water was removed and T-35 area was dry to allow access of heavy equipment, soil remedial activity operations commenced. Initially 1 inch of contaminated soil was removed around T-35.

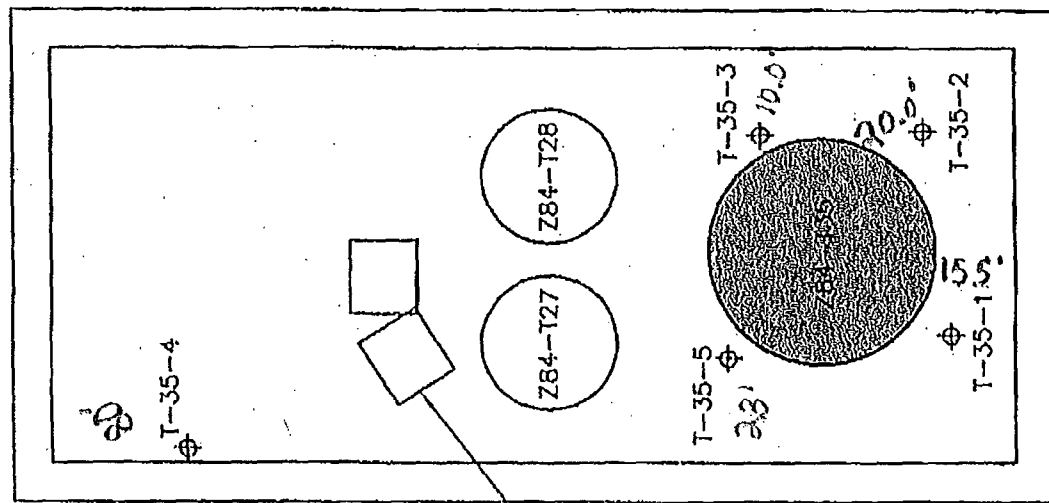
Describe Area Affected and Cleanup Action Taken. *

Initial soil samples were collected on 12/15/2011 according to diagram. Sample results indicated the additional samples were required in areas T-35-1 and T-35-5 (according to diagram). Contractors began remediation activities in areas T-35-1 and T-35-5. Approximately 1 to 3 inches of additional soil were removed in areas 1 and 5 at T-35. Confirmation sampling was again conducted on 1/5/2012. Sample results indicated that areas were clean and could be covered with clean fill dirt and gravel. All contaminated soil is being shipped off-site as Hazardous Waste to an approved TSD Facility in accordance to all applicable regulations.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 2/07/2012	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary



BERM

90 DAY BUNDLE PAD

Larsen, Thurman

From: Riege, Ed
Sent: Thursday, November 10, 2011 12:37 PM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Larsen, Thurman; Morgan, Loretta; Dorsey, Alvin
Subject: Confirmation Soil Sampling Plan
Attachments: 20111110122317137.pdf

Carl,
The soil cleanup work is to begin on Monday November 14. The Confirmation Soil Sampling Plan is attached for your and Kristen's approval.

Thanks,
Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

From: Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]
Sent: Thursday, October 27, 2011 7:31 AM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

Good morning.

The C-141 Form is marked final report, but the corrective actions have not been completely implemented yet. Please resubmit the form as the initial report and when the corrective actions are completed, Western must submit the final report with all of the attached supporting documentation of the actions taken to correct the situation. Also, please notify the agencies when the work is scheduled to begin so we may be present to witness the corrective action(s).

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

From: Morgan, Loretta [mailto:Loretta.Morgan@wnr.com]
Sent: Wednesday, October 26, 2011 3:50 PM
To: Chavez, Carl J, EMNRD
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Hi Carl

Sorry I had the incorrect date. Attached is the revised C-141 and original placed in mail to you. Thanks.

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Tuesday, October 25, 2011 4:33 PM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

The C-141 does not concur with the OCD e-mail dated October 3, 2011 (see OCD Online [C-141s](#) thumbnail page 2). Could you please re-evaluate the C-141 information and revise it and resend it with the revised information by COB tomorrow.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

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<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>

From: Morgan, Loretta [mailto:Loretta.Morgan@wnr.com]
Sent: Tuesday, October 25, 2011 3:27 PM
To: Chavez, Carl J, EMNRD
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Hi Carl

Sorry, the report was sent out in the mail today. Attached is copy of the C141. Thanks

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Tuesday, October 25, 2011 2:50 PM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV
Subject: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

Good afternoon. Did Western send the C-141 for this release that was reported on 10/3/2011?

OCD does not see this form in our files. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/oed/>

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<http://www.emnrd.state.nm.us/oed/environmental.htm#environmental>



GALLUP

WNR
LISTED
NYSE

November 10, 2011

Mr. Carl J. Chavez
Environmental Engineer
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Confirmation Soil Sampling Plan, October 2, 2011 Tank 35 Release, Western Refining Company Southwest, Inc., Gallup Refinery, Gallup, New Mexico

Dear Mr. Chavez:

Western Refining Company's Gallup Refinery (Gallup) has prepared this Confirmation Soil Sampling Plan to guide Tank 35 confirmation soil sampling activities. Confirmation soil sampling will be conducted to verify that soil contaminated as a result of the October 2, 2011 release is removed during soil removal activities. A release of a mixture of stormwater, process water, and oily wastewater occurred when Tank 35 overflowed on October 2, 2011. The location of Tank 35 is shown on Figure 1. Form C-141 was completed and submitted to the New Mexico Oil Conservation Division (OCD) to report the release on October 3, 2011. A copy of Form C-141 is included as Attachment A. At the time of the release, Tank 35 was being used to temporarily hold process waters so that API separator issues could be addressed. A heavy rain event occurred during this time frame and runoff water from the process units caused Tank 35 to overflow. Released fluids were contained by the tank berm. The refinery's Maintenance Department immediately began recovery of released fluids using a vacuum truck. Recovered fluids were temporarily stored in Tank 105 (slop oil tank). Based on the volume of fluids stored in Tank 105, approximately 1,240 barrels of process water/stormwater and 13 barrels of oily wastewater were recovered from the Tank 35 overflow.

Soil removal work, consisting of excavating contaminated gravel and soil, is scheduled to commence on November 14, 2011. Gallup believes that contaminated soil may be visually identified by staining and intends to excavate visually stained soil within the Tank 35 berm. Contaminated soil will be managed as hazardous waste and will be shipped off-site for disposal. After visually stained soil is excavated, Gallup proposes to collect five confirmation soil samples to confirm that the contamination associated with the October 2, 2011 release has been removed.

Trihydro Corporation (Trihydro) inspected the release area on October 28, 2011. Areas exhibiting staining were evident during Trihydro's inspection. Trihydro assisted in identifying five locations representative of the areas exhibiting the highest degree of staining. These locations were staked by Trihydro. Gallup intends to collect the confirmation samples from these five locations after soil removal is complete. Approximate confirmation sample locations are shown on Figure 2. Based on the observed staining, these five locations are representative of areas most heavily impacted by the October 2, 2011 release. Therefore, if contaminant concentrations in the confirmation soil samples are less than applicable cleanup standards, contamination associated with the October 2, 2011 release has likely been removed.

Mr. Carl J. Chavez
November 10, 2011
Page 2

Care will be taken during soil removal activities to preserve the staked locations (i.e. staked locations will be surveyed with a global positioning system or their distance from a stationary reference point will be measured so that the areas can be relocated after soil removal activities are complete.) Soil samples will be collected using a clean, stainless steel trowel from approximately 0 to 6 inches below the post-excavated ground surface. The trowel will be decontaminated before and after sample collection using an Alconox or Simple Green solution followed by a de-ionized water rinse. The sampler will use clean latex gloves in order to minimize cross contamination. The sampler will use a new pair of latex gloves for each sample location. Samples will be collected in laboratory-provided sample containers and placed on ice or refrigerated immediately after collection. The soil samples will be analyzed for volatile organic compounds (VOCs) by EPA Method 8260, semi volatile organic compounds (SVOCs) by EPA Method 8270, diesel range organics extended (DRO) and gasoline range organics (GRO) by EPA Method 8015M, and RCRA metals. One sample will be submitted from each of the five locations; samples will not be composited.

Analytical results will be compared to the New Mexico Environment Department (NMED) industrial/occupational soil screening standards. If exceedances of the NMED industrial/occupational soil screening standards are identified, additional excavation will be conducted in the area from which the exceeding sample was collected. An additional confirmation sample will be collected to confirm that the additional excavation was successful in removing soil contamination. This process will be repeated until confirmation samples do not exceed the NMED industrial/occupational soil screening standards.

Soil removal activities are scheduled to commence on November 14. Confirmation soil samples will be collected pending OCD approval of this correspondence. If you have any questions or comments, please do not hesitate to call me at (505) 722-0217.

Sincerely,
Western Refining Company



Ed Riege
Environmental Manager

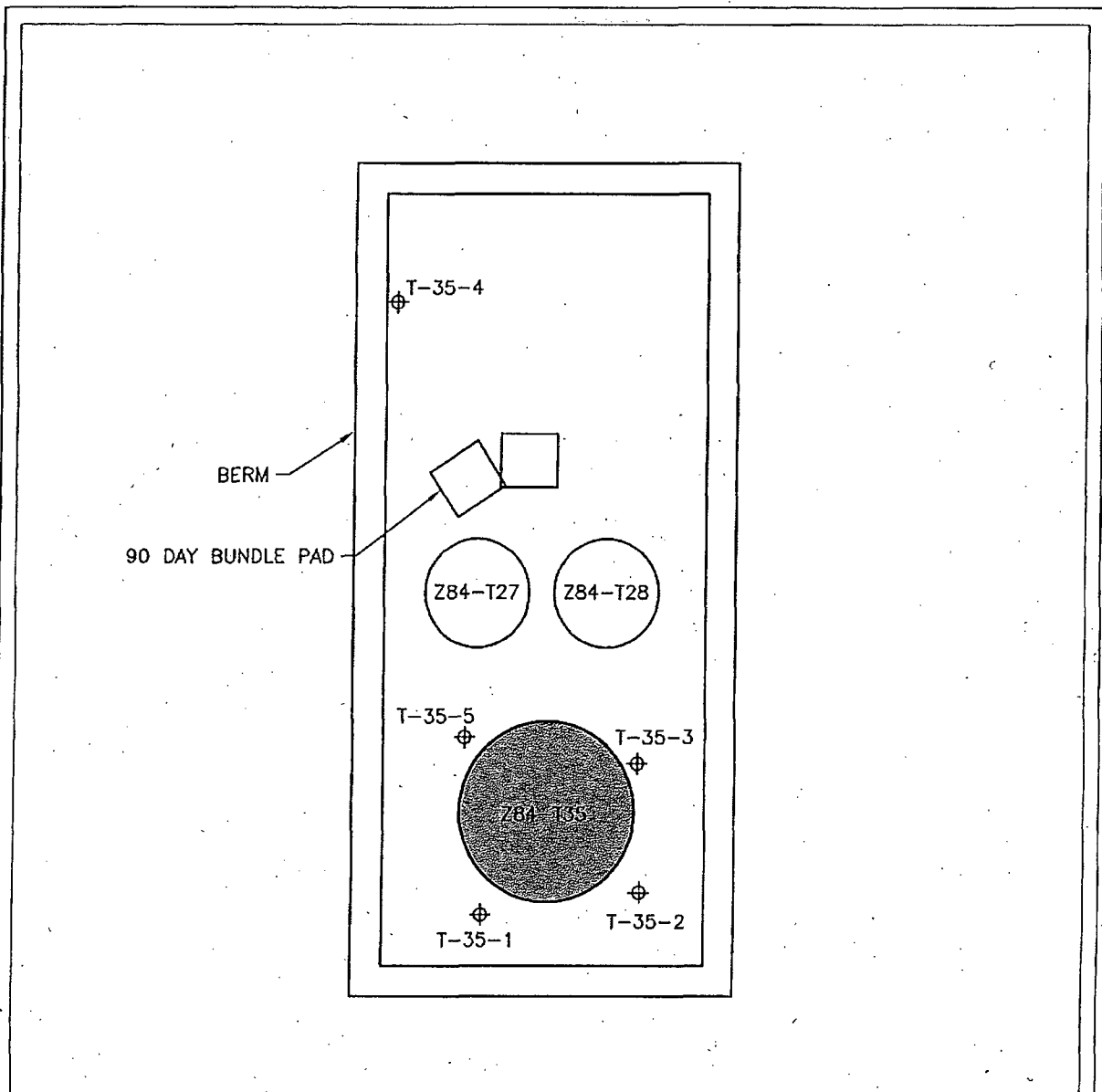
697-039-002

Attachments



cc: L. Morgan, Western Refining
G. Price, Trihydro Corporation
K. Van Horn, NM

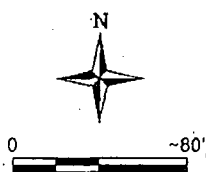
FIGURES

Drawn By: REP	Checked By: GP	Scale: 1" = -25'	Date: 11/1/11	File: 697-TANK35LAYOUT-201111
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EXPLANATION

-  T-35-1 APPROXIMATE LOCATION OF PROPOSED CONFIRMATION SOIL SAMPLE
 TANK 35





Trihydro
 CORPORATION
 1252 Commerce Drive
 Laramie, Wyoming 82070
 www.trihydro.com
 (P) 307/745.7474 (F) 307/745.7728

FIGURE 2

APPROXIMATE LOCATIONS OF PROPOSED
 CONFIRMATION SOIL SAMPLES
 TANK 35 CONFIRMATION SOIL SAMPLING PLAN
 WESTERN REFINING COMPANY L.L.C.
 GALLUP REFINERY
 GALLUP, NEW MEXICO

Drawn By: REP

Checked By: GP

Scale: 1" = ~80'

Date: 11/1/11

File: 697-TANK35LAYOUT-201111

ATTACHMENT A

FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003
Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining Southwest Inc.	Contact: Loretta Morgan
Address: I-40 Exit 39 Jamestown, NM 87347	Telephone No: 505-722-3833
Facility Name: Gallup Refinery	Facility Type: Oil Refinery

Surface Owner: Western Refining	Mineral Owner: Western Refining	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release: Oily Waste Water 13 bbls (oil) / 1240 bbls (process and stormwater)	Volume of Release: Estimate 13 barrel of oil	Volume Recovered:
Source of Release: Tank 35 overflow	Date and Hour of Occurrence: 10/2/2011 3:40 pm	Date and Hour of Discovery: 10/2/2011 3:40 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ruth Horowitz, NMED Hazardous Waste Bureau (phone call) Kristen VanHorn, NMED Hazardous Waste Bureau (phone call) Brando Powell, NMED Hazardous Waste Bureau (phone call) Carl J. Chavez, NMEMNRD, Oil Conservation Division (phone call)	
By Whom? Loretta Morgan	Date and Hour: 10/3/2011 1:23 pm (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse, No, did not impact watercourse.	

If a Watercourse was Impacted, Describe Fully.
Not applicable

Describe Cause of Problem and Remedial Action Taken:

At approximately 3:40 pm on 10/2/2011, Tank 35 overflowed due to heavy rain. API was shutdown due to foaming issues so Tank 35 was holding process water while waiting for the API operator to troubleshoot the API foaming issue. During this period, it started to rain heavily and all runoff water from the process units overflowed Tank 35. API operator was trying to manually open the valves to the overflow tanks (Tank 27 and 28), but did not open in time. Tank 35 overflowed water from the vents. Immediate action was taken to clean up the spill. The Maintenance Department was called out to start vacuuming up the area. Overflow did not reach any watercourse and was contained in the berm area of the tank. Approximately 75,600 gallons of rain water and process water first was removed by the vacuum truck and put into T-105 (slop oil tank). Water was then decanted from T-105. The decanting sent process water and storm water from T-105 back to T-35 for reprocessing. The final oil volume in T-105 was determined from a T-105 strapping chart and estimated to be 13 bbls. Rain water was included because during cleanup process, it was still raining. Soil clean-up will commence when able to get heavy equipment into the area.

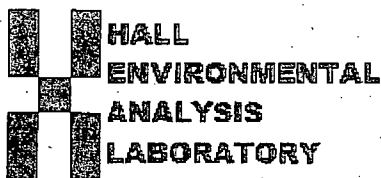
Describe Area Affected and Cleanup Action Taken:

The area affected is in the dirt berm area of Tank 35. The area is approximately 15 feet by 50 feet where an oily-water mixture had settled. A vacuum truck was used to collect the oily-water mixture. The soil in this berm area is stained with oil. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

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

Signature: <u>Mark B. Turri</u>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Mark B. Turri			
Title: Refinery Manager – Gallup		Approved by District Supervisor:	
E-mail Address: <u>Mark.Turri@wnr.com</u>		Approval Date:	Expiration Date:
Date: 10-26-2011	Phone: 505-722-3833	Conditions of Approval:	Attached <input type="checkbox"/>

- Attach Additional Sheets If Necessary



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

January 30, 2012

Thurman B. Larsen

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank 35 Cleanup

OrderNo.: 1201585

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 1 sample(s) on 1/20/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1201585

Date Reported: 1/30/2012

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/17/2012 11:20:00 AM

Lab ID: 1201585-001

Matrix: SOIL

Received Date: 1/20/2012 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	43	9.8		mg/Kg	1	1/24/2012 8:59:41 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	1/24/2012 8:59:41 AM
Surr: DNOP	85.8	77.4-131		%REC	1	1/24/2012 8:59:41 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/23/2012 5:29:09 PM
Surr: BFB	94.7	69.7-121		%REC	1	1/23/2012 5:29:09 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	1/23/2012 3:26:45 PM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/24/2012 6:22:56 AM
Barium	ND	100		mg/L	5	1/24/2012 6:47:47 AM
Cadmium	ND	1.0		mg/L	1	1/24/2012 6:22:56 AM
Chromium	ND	5.0		mg/L	1	1/24/2012 6:22:56 AM
Lead	ND	5.0		mg/L	1	1/24/2012 6:22:56 AM
Selenium	ND	1.0		mg/L	1	1/24/2012 6:22:56 AM
Silver	ND	5.0		mg/L	1	1/24/2012 6:22:56 AM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/25/2012 12:36:32 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/25/2012 12:36:32 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/25/2012 12:36:32 PM
Hexachloroethane	ND	3.0		mg/L	1	1/25/2012 12:36:32 PM
Nitrobenzene	ND	2.0		mg/L	1	1/25/2012 12:36:32 PM
Pentachlorophenol	ND	100		mg/L	1	1/25/2012 12:36:32 PM
Pyridine	ND	5.0		mg/L	1	1/25/2012 12:36:32 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/25/2012 12:36:32 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/25/2012 12:36:32 PM
Cresols, Total	ND	200		mg/L	1	1/25/2012 12:36:32 PM
2-Methylphenol	ND	200		mg/L	1	1/25/2012 12:36:32 PM
3+4-Methylphenol	ND	200		mg/L	1	1/25/2012 12:36:32 PM
Phenol	ND	200		mg/L	1	1/25/2012 12:36:32 PM
Surr: 2,4,6-Tribromophenol	75.3	18.2-136		%REC	1	1/25/2012 12:36:32 PM
Surr: 2-Fluorobiphenyl	78.0	40.5-108		%REC	1	1/25/2012 12:36:32 PM
Surr: 2-Fluorophenol	46.9	23-101		%REC	1	1/25/2012 12:36:32 PM
Surr: 4-Terphenyl-d14	66.9	40.9-112		%REC	1	1/25/2012 12:36:32 PM
Surr: Nitrobenzene-d5	74.6	41-115		%REC	1	1/25/2012 12:36:32 PM
Surr: Phenol-d5	37.9	23.4-73.6		%REC	1	1/25/2012 12:36:32 PM
VOLATILES BY 8260B/1311						Analyst: JDJ
Benzene	ND	0.50		mg/L	1	1/25/2012 10:20:42 PM
2-Butanone	ND	10		mg/L	1	1/25/2012 10:20:42 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/17/2012 11:20:00 AM

Lab ID: 1201585-001

Matrix: SOIL

Received Date: 1/20/2012 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: JDJ
Carbon Tetrachloride	ND	0.50		mg/L	1	1/25/2012 10:20:42 PM
Chlorobenzene	ND	100		mg/L	1	1/25/2012 10:20:42 PM
Chloroform	ND	6.0		mg/L	1	1/25/2012 10:20:42 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	1/25/2012 10:20:42 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	1/25/2012 10:20:42 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	1/25/2012 10:20:42 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/25/2012 10:20:42 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	1/25/2012 10:20:42 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	1/25/2012 10:20:42 PM
Vinyl chloride	ND	0.20		mg/L	1	1/25/2012 10:20:42 PM
Surr: 1,2-Dichloroethane-d4	81.2	69.9-130		%REC	1	1/25/2012 10:20:42 PM
Surr: 4-Bromofluorobenzene	92.8	71.2-123		%REC	1	1/25/2012 10:20:42 PM
Surr: Dibromofluoromethane	86.7	73.9-134		%REC	1	1/25/2012 10:20:42 PM
Surr: Toluene-d8	85.8	81.9-122		%REC	1	1/25/2012 10:20:42 PM

Qualifiers: * / X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID: MB-373	SampType: MBLK	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID: PBS	Batch ID: 373	RunNo: 517								
Prep Date: 1/20/2012	Analysis Date: 1/23/2012	SeqNo: 14910 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	77.4	131			

Sample ID: LCS-373	SampType: LCS	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID: LCSS	Batch ID: 373	RunNo: 517								
Prep Date: 1/20/2012	Analysis Date: 1/23/2012	SeqNo: 14913 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	85.5	62.7	139			
Surr: DNOP	6.1		5.000		122	77.4	131			

Sample ID: 1201584-001AMS	SampType: MS	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID: BatchQC	Batch ID: 373	RunNo: 517								
Prep Date: 1/20/2012	Analysis Date: 1/24/2012	SeqNo: 15102 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.9	49.65	0	75.9	57.2	146			
Surr: DNOP	7.2		4.965		145	77.4	131			S

Sample ID: 1201584-001AMSD	SampType: MSD	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID: BatchQC	Batch ID: 373	RunNo: 517								
Prep Date: 1/20/2012	Analysis Date: 1/24/2012	SeqNo: 15200 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.9	57.2	146	14.2	26.7	
Surr: DNOP	7.5		5.000		151	77.4	131	0	0	S

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-370	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	370	RunNo:	522					
Prep Date:	1/20/2012	Analysis Date:	1/23/2012	SeqNo:	15530	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	940		1,000		93.9	69.7	121			

Sample ID	LCS-370	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	370	RunNo:	522					
Prep Date:	1/20/2012	Analysis Date:	1/23/2012	SeqNo:	15534	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	5.0	25.00	0	116	86.4	132			
Surr: BFB	990		1,000		99.4	69.7	121			

Sample ID	1201584-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	370	RunNo:	522					
Prep Date:	1/20/2012	Analysis Date:	1/23/2012	SeqNo:	15535	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.8	23.97	0	110	72.4	149			
Surr: BFB	970		958.8		101	69.7	121			

Sample ID: 1201584-001AMSD	SampType: MSD	TestCode: EPA Method 8015B: Gasoline Range								
Client ID: BatchQC	Batch ID: 370	RunNo: 522								
Prep Date: 1/20/2012	Analysis Date: 1/23/2012	SeqNo: 15536								
		Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	4.9	24.27	0	113	86	149	4.02	19.2	
Surr: BFB	990		970.9		102	69.7	121	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-404		SampType:	MBLK		TestCode:	Volatiles by 8260B/1311			
Client ID:	PBS		Batch ID:	404		RunNo:	591			
Prep Date:	1/23/2012		Analysis Date:	1/25/2012		SeqNo:	16884		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Sum: 1,2-Dichloroethane-d4	0.16		0.2000		81.1	69.9	130			
Sum: 4-Bromofluorobenzene	0.18		0.2000		89.0	71.2	123			
Sum: Dibromofluoromethane	0.17		0.2000		87.0	73.9	134			
Sum: Toluene-d8	0.17		0.2000		82.9	81.9	122			

Sample ID	lcs-404		SampType:	LCS		TestCode:	Volatiles by 8260B/1311			
Client ID:	LCSS		Batch ID:	404		RunNo:	591			
Prep Date:	1/23/2012		Analysis Date:	1/25/2012		SeqNo:	16885		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.45	0.10	0.4000	0	113	51.1	171			
Chlorobenzene	0.42	0.10	0.4000	0	106	36.1	191			
1,1-Dichloroethene	0.45	0.10	0.4000	0	112	49.1	162			
Trichloroethene (TCE)	0.41	0.10	0.4000	0	103	41.2	166			
Sum: 1,2-Dichloroethane-d4	0.15		0.2000		75.8	69.9	130			
Sum: 4-Bromofluorobenzene	0.18		0.2000		90.2	71.2	123			
Sum: Dibromofluoromethane	0.17		0.2000		84.3	73.9	134			
Sum: Toluene-d8	0.17		0.2000		87.2	81.9	122			

Sample ID	1201447-003ams		SampType:	MS		TestCode:	Volatiles by 8260B/1311			
Client ID:	BatchQC		Batch ID:	404		RunNo:	591			
Prep Date:	1/23/2012		Analysis Date:	1/25/2012		SeqNo:	16886		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.44	0.10	0.3995	0	111	51.1	171			
Chlorobenzene	0.41	0.10	0.3995	0	103	36.1	191			
1,1-Dichloroethene	0.43	0.10	0.3995	0	108	49.1	162			
Trichloroethene (TCE)	0.42	0.10	0.3995	0	106	41.2	166			
Sum: 1,2-Dichloroethane-d4	0.16		0.1998		79.6	69.9	130			
Sum: 4-Bromofluorobenzene	0.18		0.1998		92.5	71.2	123			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	1201447-003ams	SampType: MS	TestCode: Volatiles by 8260B/1311							
Client ID:	BatchQC	Batch ID: 404	RunNo: 591							
Prep Date:	1/23/2012	Analysis Date: 1/25/2012	SeqNo: 16886 Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.17		0.1998		83.6	73.9	134			
Surr: Toluene-d8	0.16		0.1998		82.3	81.9	122			

Sample ID	1201447-003amsd	SampType: MSD	TestCode: Volatiles by 8260B/1311							
Client ID:	BatchQC	Batch ID: 404	RunNo: 591							
Prep Date:	1/23/2012	Analysis Date: 1/25/2012	SeqNo: 16887		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.41	0.10	0.3995	0	102	51.1	171	8.36	0	
Chlorobenzene	0.38	0.10	0.3995	0	96.3	36.1	191	6.83	0	
1,1-Dichloroethene	0.41	0.10	0.3995	0	103	49.1	162	5.34	0	
Trichloroethene (TCE)	0.37	0.10	0.3995	0	93.3	41.2	166	12.7	0	
Surr: 1,2-Dichloroethane-d4	0.16		0.1998		78.0	69.9	130	0	0	
Surr: 4-Bromofluorobenzene	0.19		0.1998		93.3	71.2	123	0	0	
Surr: Dibromofluoromethane	0.17		0.1998		82.9	73.9	134	0	0	
Surr: Toluene-d8	0.17		0.1998		85.5	81.9	122	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID: mb-420	SampType: MBLK		TestCode: EPA Method 8270C TCLP							
Client ID: PBS	Batch ID: 420		RunNo: 573							
Prep Date: 1/25/2012	Analysis Date: 1/25/2012		SeqNo: 16253				Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
Surr: 2,4,6-Tribromophenol	0.18		0.2000		87.8	18.2	136			
Surr: 2-Fluorobiphenyl	0.090		0.1000		90.3	40.5	108			
Surr: 2-Fluorophenol	0.13		0.2000		64.3	23	101			
Surr: 4-Terphenyl-d14	0.083		0.1000		82.6	40.9	112			
Surr: Nitrobenzene-d5	0.092		0.1000		91.7	41	115			
Surr: Phenol-d5	0.11		0.2000		52.8	23.4	73.6			

Sample ID	lcs-420	SampType: LCS		TestCode: EPA Method 8270C TCLP						
Client ID:	LCSS	Batch ID: 420		RunNo: 573						
Prep Date:	1/25/2012	Analysis Date: 1/25/2012		SeqNo: 16254		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.077	0.010	0.1000	0	77.4	18.2	108			
Hexachlorobenzene	0.064	0.010	0.1000	0	64.1	34.2	74.5			
Hexachlorobutadiene	0.063	0.010	0.1000	0	63.2	31.3	88.5			
Hexachloroethane	0.064	0.010	0.1000	0	63.7	31.6	94.6			
Nitrobenzene	0.074	0.010	0.1000	0	73.7	39.7	107			
Pentachlorophenol	0.042	0.010	0.1000	0	41.9	15.9	86.7			
Pyridine	0.043	0.010	0.1000	0	43.2	14.7	73.6			
2,4,5-Trichlorophenol	0.064	0.010	0.1000	0	64.0	18.9	102			
2,4,6-Trichlorophenol	0.055	0.010	0.1000	0	55.0	12.3	103			
Cresols, Total	0.21	0.010	0.3000	0	68.6	25.9	99.2			
2-Methylphenol	0.063	0.010	0.1000	0	62.6	22	81.7			
3+4-Methylphenol	0.14	0.010	0.2000	0	71.6	2.89	157			
Surr: 2,4,6-Tribromophenol	0.16		0.2000		78.2	18.2	136			
Surr: 2-Fluorobiphenyl	0.080		0.1000		80.2	40.5	108			
Surr: 2-Fluorophenol	0.099		0.2000		49.3	23	101			
Surr: 4-Terphenyl-d14	0.069		0.1000		68.9	40.9	112			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	ics-420	SampType:	LCS	TestCode:	EPA Method 8270C TCLP					
Client ID:	LCSS	Batch ID:	420	RunNo:	573					
Prep Date:	1/25/2012	Analysis Date:	1/25/2012	SeqNo:	16254	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	0.075		0.1000		75.0	41	115			
Surr: Phenol-d5	0.089		0.2000		44.7	23.4	73.6			

Sample ID	1201447-003Ams	SampType:	MS	TestCode:	EPA Method 8270C TCLP					
Client ID:	BatchQC	Batch ID:	420	RunNo:	573					
Prep Date:	1/25/2012	Analysis Date:	1/25/2012	SeqNo:	16259					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.10	0.010	0.1000	0	104	9.57	115			
Hexachlorobenzene	0.080	0.010	0.1000	0	80.4	15.9	96.9			
Hexachlorobutadiene	0.079	0.010	0.1000	0	78.5	21.1	97.9			
Hexachloroethane	0.076	0.010	0.1000	0	76.4	18.1	105			
Nitrobenzene	0.099	0.010	0.1000	0	99.4	23.3	123			
Pentachlorophenol	0.073	0.010	0.1000	0	72.8	10	150			
Pyridine	0.050	0.010	0.1000	0	50.0	9.15	86.2			
2,4,5-Trichlorophenol	0.092	0.010	0.1000	0	91.7	8.46	119			
2,4,6-Trichlorophenol	0.090	0.010	0.1000	0	90.2	4.44	115			
Cresols, Total	0.26	0.010	0.3000	0	85.4	8.35	114			
2-Methylphenol	0.074	0.010	0.1000	0	73.8	17.5	78.8			
3+4-Methylphenol	0.18	0.010	0.2000	0	91.2	17.5	78.8			S
Surr: 2,4,6-Tribromophenol	0.21		0.2000		107	18.2	136			
Surr: 2-Fluorobiphenyl	0.11		0.1000		108	40.5	108			
Surr: 2-Fluorophenol	0.14		0.2000		69.6	23	101			
Surr: 4-Terphenyl-d14	0.097		0.1000		96.9	40.9	112			
Surr: Nitrobenzene-d5	0.10		0.1000		103	41	115			
Surr: Phenol-d5	0.11		0.2000		55.6	23.4	73.6			

Sample ID	1201447-003Amsd	SampType:	MSD	TestCode:	EPA Method 8270C TCLP					
Client ID:	BatchQC	Batch ID:	420	RunNo:	573					
Prep Date:	1/25/2012	Analysis Date:	1/25/2012	SeqNo:	16263	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.11	0.010	0.1000	0	114	9.57	115	9.49	20	
Hexachlorobenzene	0.086	0.010	0.1000	0	86.4	15.9	96.9	7.20	20	
Hexachlorobutadiene	0.075	0.010	0.1000	0	75.2	21.1	97.9	4.35	20	
Hexachloroethane	0.086	0.010	0.1000	0	85.8	18.1	105	11.6	20	
Nitrobenzene	0.097	0.010	0.1000	0	97.5	23.3	123	1.93	20	
Pentachlorophenol	0.071	0.010	0.1000	0	71.1	10	150	2.31	20	
Pyridine	0.051	0.010	0.1000	0	51.4	9.15	86.2	2.84	20	
2,4,5-Trichlorophenol	0.099	0.010	0.1000	0	99.4	8.46	119	8.02	20	
2,4,6-Trichlorophenol	0.090	0.010	0.1000	0	90.0	4.44	115	0.266	20	
Cresols, Total	0.30	0.010	0.3000	0	99.6	8.35	114	15.4	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 8 of 12

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	1201447-003Amsd	SampType: MSD	TestCode: EPA Method 8270C TCLP							
Client ID:	BatchQC	Batch ID: 420	RunNo: 573							
Prep Date:	1/25/2012	Analysis Date: 1/25/2012	SeqNo: 16263		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.089	0.010	0.1000	0	89.1	17.5	78.8	0	20	S
3+4-Methylphenol	0.21	0.010	0.2000	0	105	17.5	78.8	0	20	S
Surr: 2,4,6-Tribromophenol	0.23		0.2000		113	18.2	136	0	0	
Surr: 2-Fluorobiphenyl	0.11		0.1000		109	40.5	108	0	0	S
Surr: 2-Fluorophenol	0.16		0.2000		78.0	23	101	0	0	
Surr: 4-Terphenyl-d14	0.10		0.1000		101	40.9	112	0	0	
Surr: Nitrobenzene-d5	0.11		0.1000		107	41	115	0	0	
Surr: Phenol-d5	0.12		0.2000		60.7	23.4	73.6	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-392	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	392	RunNo:	532					
Prep Date:	1/23/2012	Analysis Date:	1/23/2012	SeqNo:	15158	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-392	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	392	RunNo:	532					
Prep Date:	1/23/2012	Analysis Date:	1/23/2012	SeqNo:	15159	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK.Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	96.9	80	120			

Sample ID	1201427-001AMS	SampType:	MS	TestCode:	MERCURY, TCLP					
Client ID:	BatchQC	Batch ID:	392	RunNo:	532					
Prep Date:	1/23/2012	Analysis Date:	1/23/2012	SeqNo:	15161	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	97.3	75	125			

Sample ID	1201427-001AMSD	SampType:	MSD	TestCode:	MERCURY, TCLP					
Client ID:	BatchQC	Batch ID:	392	RunNo:	532					
Prep Date:	1/23/2012	Analysis Date:	1/23/2012	SeqNo:	15162	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	97.6	75	125	0	20	

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-393	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	393	RunNo:	529					
Prep Date:	1/23/2012	Analysis Date:	1/24/2012	SeqNo:	15082	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								
Selenium	ND	1.0								
Silver	ND	5.0								

Sample ID	LCS-393	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	393	RunNo:	529					
Prep Date:	1/23/2012	Analysis Date:	1/24/2012	SeqNo:	15083	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0	0.5000	0	101	80	120			
Barium	ND	100	0.5000	0	91.7	80	120			
Cadmium	ND	1.0	0.5000	0	96.3	80	120			
Chromium	ND	5.0	0.5000	0	93.3	80	120			
Lead	ND	5.0	0.5000	0	90.6	80	120			
Selenium	ND	1.0	0.5000	0	102	80	120			
Silver	ND	5.0	0.1000	0	101	80	120			

Sample ID	1201447-003AMS	SampType:	MS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	BatchQC	Batch ID:	393	RunNo:	529					
Prep Date:	1/23/2012	Analysis Date:	1/24/2012	SeqNo:	15089	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Arsenic	ND	5.0	0.5000	0.02046	103	75	125			
Cadmium	ND	1.0	0.5000	0.05392	98.8	75	125			
Chromium	ND	5.0	0.5000	0	92.5	75	125			
Lead	ND	5.0	0.5000	0.3232	88.7	75	125			
Selenium	ND	1.0	0.5000	0	98.6	75	125			
Silver	ND	5.0	0.1000	0	100	75	125			

Sample ID	1201447-003AMSD			SampType:	MSD		TestCode:	EPA Method 6010B: TCLP Metals			
Client ID:	BatchQC		Batch ID:		393		RunNo:	529			
Prep Date:	1/23/2012		Analysis Date:		1/24/2012		SeqNo:	15090		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	

Arsenic	ND	5.0	0.5000	0.02046	96.7	75	125	0	20	
Cadmium	ND	1.0	0.5000	0.05392	91.3	75	125	0	20	
Chromium	ND	5.0	0.5000	0	85.9	75	125	0	20	
Lead	ND	5.0	0.5000	0.3232	78.0	75	125	0	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201585

30-Jan-12

Client: Western Refining Southwest, Gallup

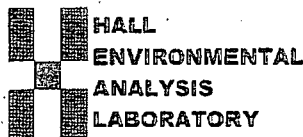
Project: Tank 35 Cleanup

Sample ID	1201447-003AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	BatchQC	Batch ID:	393	RunNo:	529					
Prep Date:	1/23/2012	Analysis Date:	1/24/2012	SeqNo:	15090	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	1.0	0.5000	0	94.2	75	125	0	20	
Silver	ND	5.0	0.1000	0	93.2	75	125	0	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1201585

Logged by: Lindsay Mangin 1/20/2012 7:45:00 AM

Completed By: Lindsay Mangin 1/20/2012 8:54:44 AM

Reviewed By:  1/20/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☒ No ☐ NA
5. Was an attempt made to cool the samples? Yes ☒ No ☐ NA
6. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA
7. Sample(s) in proper container(s)? Yes ☒ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
10. Was preservative added to bottles? Yes ☐ No ☒ NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes ☐ No ☐ No VOA Vials ☒
12. Were any sample containers received broken? Yes ☐ No ☒
13. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐ # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐ (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes ☒ No ☐ Adjusted?
16. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐ Checked by:

Special Handling (if applicable)

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

Person Notified: _____ Date: _____
By Whom: _____ Via: eMail Phone Fax In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

Chain-of-Custody Record

Client: WESTERN Refining

Gallup Refinery

Mailing Address: RT 3 Box 7

Gallup NM 87301

Phone #: 505 722 3833

email or Fax#: 505 722-0210

QA/QC Package:

☐ Standard

☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Project Manager:

BECK LARSEN

Sampler: A. Dorsey

Office: ☒ Yes ☐ No

Sample Temperature: 22

Date Time Matrix Sample Request ID

1-17-12 11:20 5014 T-35-5

Container Type and #

3-80-2 N/A

Preservative Type

N/A

HEAL No.

1701585

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

TANK 35 Cleanup

Project #: N/A



**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 + TMB's (8021)

BTEX + MTBE + TPH (Gas only)

TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

8310 (PNA or PAH)

RCRA 8 Metals TCIP

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA) TCIP

8270 (Semi-VOA) TCIP

X 050/610 (8015M) 2-TCIP

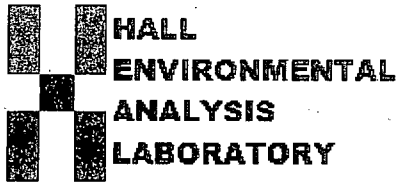
Air Bubbles (Y or N)

Remarks:

Received by: [Signature] Date: 1/17/12 Time: 12:00

Date: 1-17-12 Time: 12:00 Relinquished by: Alum

Date: 1-17-12 Time: 12:00 Relinquished by: [Signature]



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

January 24, 2012

Thurman B. Larsen

Western Refining Southwest, Gallup

Rt. 3 Box 7

Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

TOTAL + TCLP

RE: Tank 35 Cleanup

OrderNo.: 1201183

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 2 sample(s) on 1/9/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 13, 2012

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

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

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109



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

Case Narrative

WO#: 1201183
Date: 1/24/2012

CLIENT: Western Refining Southwest, Gallup
Project: Tank 35 Cleanup

Any comments or problems with the analytical events associated with this report are noted below.

Analytical Comments for METHOD 8270_S, SAMPLE 1201183-001C, Batch ID 194: Oily Matrix, surrogates not recovered due to dilution.

Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	85	9.7		mg/Kg	1	1/10/2012 1:45:12 PM
Motor Oil Range Organics (MRO)	240	49		mg/Kg	1	1/10/2012 1:45:12 PM
Surr: DNOP	118	77.4-131		%REC	1	1/10/2012 1:45:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/10/2012 4:29:46 PM
Surr: BFB	106	69.7-121		%REC	1	1/10/2012 4:29:46 PM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/kg	1	1/11/2012 2:42:52 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	1/18/2012 3:01:36 PM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Arsenic	3.5	2.5		mg/L	1	1/11/2012 9:30:55 AM
Cadmium	ND	0.10		mg/L	1	1/11/2012 9:30:55 AM
Chromium	7.8	0.30		mg/L	1	1/11/2012 9:30:55 AM
Lead	8.6	0.25		mg/L	1	1/11/2012 9:30:55 AM
Selenium	ND	2.5		mg/L	1	1/11/2012 9:30:55 AM
Silver	ND	0.25		mg/L	1	1/11/2012 9:30:55 AM
Barium	310	1.0		mg/L	10	1/11/2012 10:19:09 AM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/19/2012 6:48:00 AM
Cadmium	ND	1.0		mg/L	1	1/19/2012 6:48:00 AM
Chromium	ND	5.0		mg/L	1	1/19/2012 6:48:00 AM
Lead	ND	5.0		mg/L	1	1/19/2012 6:48:00 AM
Selenium	ND	1.0		mg/L	1	1/19/2012 6:48:00 AM
Silver	ND	5.0		mg/L	1	1/19/2012 6:48:00 AM
Barium	ND	100		mg/L	5	1/19/2012 6:53:34 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Acenaphthylene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Aniline	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Anthracene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Azobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benz(a)anthracene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benzo(a)pyrene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benzo(b)fluoranthene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benzo(g,h,i)perylene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benzo(k)fluoranthene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Benzoic acid	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
Benzyl alcohol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Bis(2-chloroethyl)ether	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Bis(2-chloroisopropyl)ether	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Bis(2-ethylhexyl)phthalate	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
4-Bromophenyl phenyl ether	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Butyl benzyl phthalate	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Carbazole	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
4-Chloro-3-methylphenol	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
4-Chloroaniline	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
2-Chloronaphthalene	ND	5.0		mg/Kg	1	1/10/2012 8:34:41 PM
2-Chlorophenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
4-Chlorophenyl phenyl ether	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Chrysene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Di-n-butyl phthalate	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
Di-n-octyl phthalate	ND	5.0		mg/Kg	1	1/10/2012 8:34:41 PM
Dibenz(a,h)anthracene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Dibenzofuran	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
1,2-Dichlorobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
1,3-Dichlorobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
1,4-Dichlorobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
3,3'-Dichlorobenzidine	ND	5.0		mg/Kg	1	1/10/2012 8:34:41 PM
Diethyl phthalate	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Dimethyl phthalate	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2,4-Dichlorophenol	ND	7.9		mg/Kg	1	1/10/2012 8:34:41 PM
2,4-Dimethylphenol	ND	6.0		mg/Kg	1	1/10/2012 8:34:41 PM
4,6-Dinitro-2-methylphenol	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
2,4-Dinitrophenol	ND	7.9		mg/Kg	1	1/10/2012 8:34:41 PM
2,4-Dinitrotoluene	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
2,6-Dinitrotoluene	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
Fluoranthene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Fluorene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Hexachlorobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Hexachlorobutadiene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Hexachlorocyclopentadiene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Hexachloroethane	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Indeno(1,2,3-cd)pyrene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Isophorone	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
1-Methylnaphthalene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2-Methylnaphthalene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2-Methylphenol	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
3+4-Methylphenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
N-Nitrosodi-n-propylamine	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Page 4 of 33

Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodiphenylamine	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Naphthalene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2-Nitroaniline	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
3-Nitroaniline	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
4-Nitroaniline	ND	7.9		mg/Kg	1	1/10/2012 8:34:41 PM
Nitrobenzene	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
2-Nitrophenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
4-Nitrophenol	ND	5.0		mg/Kg	1	1/10/2012 8:34:41 PM
Pentachlorophenol	ND	7.9		mg/Kg	1	1/10/2012 8:34:41 PM
Phenanthrene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Phenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Pyrene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Pyridine	ND	9.9		mg/Kg	1	1/10/2012 8:34:41 PM
1,2,4-Trichlorobenzene	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2,4,5-Trichlorophenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
2,4,6-Trichlorophenol	ND	4.0		mg/Kg	1	1/10/2012 8:34:41 PM
Surr: 2,4,6-Tribromophenol	0	24.9-115	S	%REC	1	1/10/2012 8:34:41 PM
Surr: 2-Fluorobiphenyl	0	26.2-108	S	%REC	1	1/10/2012 8:34:41 PM
Surr: 2-Fluorophenol	0	17.7-98	S	%REC	1	1/10/2012 8:34:41 PM
Surr: 4-Terphenyl-d14	0	33.8-108	S	%REC	1	1/10/2012 8:34:41 PM
Surr: Nitrobenzene-d5	0	23-109	S	%REC	1	1/10/2012 8:34:41 PM
Surr: Phenol-d5	0	22.1-103	S	%REC	1	1/10/2012 8:34:41 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/19/2012 10:19:56 AM
Hexachlorobenzene	ND	0.13		mg/L	1	1/19/2012 10:19:56 AM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/19/2012 10:19:56 AM
Hexachloroethane	ND	3.0		mg/L	1	1/19/2012 10:19:56 AM
Nitrobenzene	ND	2.0		mg/L	1	1/19/2012 10:19:56 AM
Pentachlorophenol	ND	100		mg/L	1	1/19/2012 10:19:56 AM
Pyridine	ND	5.0		mg/L	1	1/19/2012 10:19:56 AM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/19/2012 10:19:56 AM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/19/2012 10:19:56 AM
Cresols, Total	ND	200		mg/L	1	1/19/2012 10:19:56 AM
2-Methylphenol	ND	200		mg/L	1	1/19/2012 10:19:56 AM
3+4-Methylphenol	ND	200		mg/L	1	1/19/2012 10:19:56 AM
Phenol	ND	200		mg/L	1	1/19/2012 10:19:56 AM
Surr: 2,4,6-Tribromophenol	78.5	18.2-136		%REC	1	1/19/2012 10:19:56 AM
Surr: 2-Fluorobiphenyl	88.8	40.5-108		%REC	1	1/19/2012 10:19:56 AM
Surr: 2-Fluorophenol	67.9	23-101		%REC	1	1/19/2012 10:19:56 AM
Surr: 4-Terphenyl-d14	80.2	40.9-112		%REC	1	1/19/2012 10:19:56 AM
Surr: Nitrobenzene-d5	89.6	41-115		%REC	1	1/19/2012 10:19:56 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Surr: Phenol-d5	52.4	23.4-73.6		%REC	1	1/19/2012 10:19:56 AM
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Toluene	0.067	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Methyl tert-butyl ether (MTBE)	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2,4-Trimethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,3,5-Trimethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2-Dichloroethane (EDC)	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2-Dibromoethane (EDB)	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Naphthalene	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
1-Methylnaphthalene	ND	0.19		mg/Kg	1	1/11/2012 5:50:37 AM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	1/11/2012 5:50:37 AM
Acetone	ND	0.73		mg/Kg	1	1/11/2012 5:50:37 AM
Bromobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Bromodichloromethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Bromoform	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Bromomethane	ND	0.15		mg/Kg	1	1/11/2012 5:50:37 AM
2-Butanone	ND	0.49		mg/Kg	1	1/11/2012 5:50:37 AM
Carbon disulfide	ND	0.49		mg/Kg	1	1/11/2012 5:50:37 AM
Carbon tetrachloride	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Chlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Chloroethane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Chloroform	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Chloromethane	ND	0.15		mg/Kg	1	1/11/2012 5:50:37 AM
2-Chlorotoluene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
4-Chlorotoluene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
cis-1,2-DCE	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
cis-1,3-Dichloropropene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2-Dibromo-3-chloropropane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Dibromochloromethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Dibromomethane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
1,2-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,3-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,4-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Dichlorodifluoromethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,1-Dichloroethane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
1,1-Dichloroethene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2-Dichloropropane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,3-Dichloropropane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
2,2-Dichloropropane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,1-Dichloropropene	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Hexachlorobutadiene	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
2-Hexanone	ND	0.49		mg/Kg	1	1/11/2012 5:50:37 AM
Isopropylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
4-Isopropyltoluene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
4-Methyl-2-pentanone	ND	0.49		mg/Kg	1	1/11/2012 5:50:37 AM
Methylene chloride	ND	0.15		mg/Kg	1	1/11/2012 5:50:37 AM
n-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
n-Propylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
sec-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Styrene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
tert-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,1,1,2-Tetrachloroethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,1,2,2-Tetrachloroethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Tetrachloroethene (PCE)	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
trans-1,2-DCE	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
trans-1,3-Dichloropropene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2,3-Trichlorobenzene	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
1,2,4-Trichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,1,1-Trichloroethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,1,2-Trichloroethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Trichloroethene (TCE)	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Trichlorofluoromethane	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
1,2,3-Trichloropropane	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Vinyl chloride	ND	0.049		mg/Kg	1	1/11/2012 5:50:37 AM
Xylenes, Total	ND	0.097		mg/Kg	1	1/11/2012 5:50:37 AM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%REC	1	1/11/2012 5:50:37 AM
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	1/11/2012 5:50:37 AM
Surr: Dibromofluoromethane	112	63.1-128		%REC	1	1/11/2012 5:50:37 AM
Surr: Toluene-d8	92.5	70-130		%REC	1	1/11/2012 5:50:37 AM
VOLATILES BY 8260B/1311						Analyst: NSB
Benzene	ND	0.50		mg/L	1	1/17/2012 4:39:38 PM
2-Butanone	ND	10		mg/L	1	1/17/2012 4:39:38 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	1/17/2012 4:39:38 PM
Chlorobenzene	ND	100		mg/L	1	1/17/2012 4:39:38 PM
Chloroform	ND	6.0		mg/L	1	1/17/2012 4:39:38 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	1/17/2012 4:39:38 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	1/17/2012 4:39:38 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	1/17/2012 4:39:38 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/17/2012 4:39:38 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	1/17/2012 4:39:38 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:15:00 AM

Lab ID: 1201183-001

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: NSB
Trichloroethene (TCE)	ND	0.50		mg/L	1	1/17/2012 4:39:38 PM
Vinyl chloride	ND	0.20		mg/L	1	1/17/2012 4:39:38 PM
Surr: 1,2-Dichloroethane-d4	92.7	69.9-130		%REC	1	1/17/2012 4:39:38 PM
Surr: 4-Bromofluorobenzene	95.2	71.2-123		%REC	1	1/17/2012 4:39:38 PM
Surr: Dibromofluoromethane	109	73.9-134		%REC	1	1/17/2012 4:39:38 PM
Surr: Toluene-d8	95.8	81.9-122		%REC	1	1/17/2012 4:39:38 PM

Qualifiers:

- *X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

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Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JMP
Diesel Range Organics (DRO)	34	10		mg/Kg	1	1/10/2012 12:36:46 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/10/2012 12:36:46 PM
Surr: DNOP	130	77.4-131		%REC	1	1/10/2012 12:36:46 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	1/10/2012 4:59:57 PM
Surr: BFB	99.7	69.7-121		%REC	1	1/10/2012 4:59:57 PM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/kg	1	1/11/2012 2:48:16 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	1/18/2012 3:03:23 PM
EPA METHOD 6010B: SOIL METALS						Analyst: ELS
Arsenic	ND	2.5		mg/L	1	1/11/2012 9:35:14 AM
Cadmium	ND	0.10		mg/L	1	1/11/2012 9:35:14 AM
Chromium	6.7	0.30		mg/L	1	1/11/2012 9:35:14 AM
Lead	1.9	0.25		mg/L	1	1/11/2012 9:35:14 AM
Selenium	ND	2.5		mg/L	1	1/11/2012 9:35:14 AM
Silver	ND	0.25		mg/L	1	1/11/2012 9:35:14 AM
Barium	320	1.0		mg/L	10	1/11/2012 10:21:11 AM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/19/2012 6:52:12 AM
Cadmium	ND	1.0		mg/L	1	1/19/2012 6:52:12 AM
Chromium	ND	5.0		mg/L	1	1/19/2012 6:52:12 AM
Lead	ND	5.0		mg/L	1	1/19/2012 6:52:12 AM
Selenium	ND	1.0		mg/L	1	1/19/2012 6:52:12 AM
Silver	ND	5.0		mg/L	1	1/19/2012 6:52:12 AM
Barium	ND	100		mg/L	5	1/19/2012 6:57:42 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Acenaphthylene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Aniline	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Anthracene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Azobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzoic acid	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Carbazole	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	1/10/2012 8:05:55 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Chrysene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	1/10/2012 8:05:55 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Dibenzofuran	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	1/10/2012 8:05:55 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	1/10/2012 8:05:55 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
Fluoranthene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Fluorene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Hexachloroethane	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Isophorone	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2-Methylphenol	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Naphthalene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
3-Nitroaniline	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	1/10/2012 8:05:55 PM
Nitrobenzene	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	1/10/2012 8:05:55 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	1/10/2012 8:05:55 PM
Phenanthrene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Phenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Pyrene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Pyridine	ND	5.0		mg/Kg	1	1/10/2012 8:05:55 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	1/10/2012 8:05:55 PM
Surr: 2,4,6-Tribromophenol	42.4	24.9-115		%REC	1	1/10/2012 8:05:55 PM
Surr: 2-Fluorobiphenyl	65.3	26.2-108		%REC	1	1/10/2012 8:05:55 PM
Surr: 2-Fluorophenol	63.3	17.7-98		%REC	1	1/10/2012 8:05:55 PM
Surr: 4-Terphenyl-d14	50.3	33.8-108		%REC	1	1/10/2012 8:05:55 PM
Surr: Nitrobenzene-d5	47.1	23-109		%REC	1	1/10/2012 8:05:55 PM
Surr: Phenol-d5	57.2	22.1-103		%REC	1	1/10/2012 8:05:55 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/19/2012 11:47:03 AM
Hexachlorobenzene	ND	0.13		mg/L	1	1/19/2012 11:47:03 AM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/19/2012 11:47:03 AM
Hexachloroethane	ND	3.0		mg/L	1	1/19/2012 11:47:03 AM
Nitrobenzene	ND	2.0		mg/L	1	1/19/2012 11:47:03 AM
Pentachlorophenol	ND	100		mg/L	1	1/19/2012 11:47:03 AM
Pyridine	ND	5.0		mg/L	1	1/19/2012 11:47:03 AM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/19/2012 11:47:03 AM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/19/2012 11:47:03 AM
Cresols, Total	ND	200		mg/L	1	1/19/2012 11:47:03 AM
2-Methylphenol	ND	200		mg/L	1	1/19/2012 11:47:03 AM
3+4-Methylphenol	ND	200		mg/L	1	1/19/2012 11:47:03 AM
Phenol	ND	200		mg/L	1	1/19/2012 11:47:03 AM
Surr: 2,4,6-Tribromophenol	75.3	18.2-136		%REC	1	1/19/2012 11:47:03 AM
Surr: 2-Fluorobiphenyl	84.0	40.5-108		%REC	1	1/19/2012 11:47:03 AM
Surr: 2-Fluorophenol	54.6	23-101		%REC	1	1/19/2012 11:47:03 AM
Surr: 4-Terphenyl-d14	80.8	40.9-112		%REC	1	1/19/2012 11:47:03 AM
Surr: Nitrobenzene-d5	93.9	41-115		%REC	1	1/19/2012 11:47:03 AM

Qualifiers: */X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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Analytical Report

Lab Order 1201183

Date Reported: 1/24/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Surr: Phenol-d5	37.1	23.4-73.6		%REC	1	1/19/2012 11:47:03 AM
EPA METHOD 8260B: VOLATILES						Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Toluene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Ethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Methyl tert-butyl ether (MTBE)	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2,4-Trimethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,3,5-Trimethylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2-Dichloroethane (EDC)	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2-Dibromoethane (EDB)	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Naphthalene	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2012 6:18:35 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2012 6:18:35 AM
Acetone	ND	0.74		mg/Kg	1	1/11/2012 6:18:35 AM
Bromobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Bromodichloromethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Bromoform	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Bromomethane	ND	0.15		mg/Kg	1	1/11/2012 6:18:35 AM
2-Butanone	ND	0.49		mg/Kg	1	1/11/2012 6:18:35 AM
Carbon disulfide	ND	0.49		mg/Kg	1	1/11/2012 6:18:35 AM
Carbon tetrachloride	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Chlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Chloroethane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Chloroform	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Chloromethane	ND	0.15		mg/Kg	1	1/11/2012 6:18:35 AM
2-Chlorotoluene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
4-Chlorotoluene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
cis-1,2-DCE	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
cis-1,3-Dichloropropene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2-Dibromo-3-chloropropane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Dibromochloromethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Dibromomethane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
1,2-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,3-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,4-Dichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Dichlorodifluoromethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,1-Dichloroethane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
1,1-Dichloroethene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2-Dichloropropane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,3-Dichloropropane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
2,2-Dichloropropane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: NSB
1,1-Dichloropropene	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Hexachlorobutadiene	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
2-Hexanone	ND	0.49		mg/Kg	1	1/11/2012 6:18:35 AM
Isopropylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
4-Isopropyltoluene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
4-Methyl-2-pentanone	ND	0.49		mg/Kg	1	1/11/2012 6:18:35 AM
Methylene chloride	ND	0.15		mg/Kg	1	1/11/2012 6:18:35 AM
n-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
n-Propylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
sec-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Styrene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
tert-Butylbenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,1,1,2-Tetrachloroethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,1,2,2-Tetrachloroethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Tetrachloroethene (PCE)	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
trans-1,2-DCE	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
trans-1,3-Dichloropropene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2,3-Trichlorobenzene	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
1,2,4-Trichlorobenzene	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,1,1-Trichloroethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,1,2-Trichloroethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Trichloroethene (TCE)	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Trichlorofluoromethane	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
1,2,3-Trichloropropane	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Vinyl chloride	ND	0.049		mg/Kg	1	1/11/2012 6:18:35 AM
Xylenes, Total	ND	0.099		mg/Kg	1	1/11/2012 6:18:35 AM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	1/11/2012 6:18:35 AM
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	1	1/11/2012 6:18:35 AM
Surr: Dibromofluoromethane	111	63.1-128		%REC	1	1/11/2012 6:18:35 AM
Surr: Toluene-d8	91.2	70-130		%REC	1	1/11/2012 6:18:35 AM
VOLATILES BY 8260B/1311						Analyst: NSB
Benzene	ND	0.50		mg/L	1	1/17/2012 5:07:21 PM
2-Butanone	ND	10		mg/L	1	1/17/2012 5:07:21 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	1/17/2012 5:07:21 PM
Chlorobenzene	ND	100		mg/L	1	1/17/2012 5:07:21 PM
Chloroform	ND	6.0		mg/L	1	1/17/2012 5:07:21 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	1/17/2012 5:07:21 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	1/17/2012 5:07:21 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	1/17/2012 5:07:21 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/17/2012 5:07:21 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	1/17/2012 5:07:21 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Project: Tank 35 Cleanup

Collection Date: 1/5/2012 10:30:00 AM

Lab ID: 1201183-002

Matrix: SOIL

Received Date: 1/9/2012 12:50:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: NSB
Trichloroethene (TCE)	ND	0.50		mg/L	1	1/17/2012 5:07:21 PM
Vinyl chloride	ND	0.20		mg/L	1	1/17/2012 5:07:21 PM
Surr: 1,2-Dichloroethane-d4	90.3	69.9-130		%REC	1	1/17/2012 5:07:21 PM
Surr: 4-Bromofluorobenzene	96.2	71.2-123		%REC	1	1/17/2012 5:07:21 PM
Surr: Dibromofluoromethane	109	73.9-134		%REC	1	1/17/2012 5:07:21 PM
Surr: Toluene-d8	95.6	81.9-122		%REC	1	1/17/2012 5:07:21 PM

Qualifiers: *X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

Anatek Labs, Inc.

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

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

Batch #: 120117018
Project Name: 1201183

Analytical Results Report

Sample Number	120117018-001	Sampling Date	1/5/2012	Date/Time Received	1/17/2012 10:36 AM
Client Sample ID	1201183-001C / T-35-5	Sampling Time	10:15 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	1/19/2012	CRW	SW846 CH7	
Ignitability	Negative			1/18/2012	JWC	EPA 1030	
pH	8.96	ph Units		1/18/2012	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	15	1/19/2012	JTT	SW846 CH7	
%moisture	8.6	Percent		1/19/2012	KFG	%moisture	

Sample Number	120117018-002	Sampling Date	1/5/2012	Date/Time Received	1/17/2012 10:36 AM
Client Sample ID	1201183-002C / T-35-1	Sampling Time	10:30 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	1/19/2012	CRW	SW846 CH7	
Ignitability	Negative			1/18/2012	JWC	EPA 1030	
pH	9.16	ph Units		1/18/2012	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	15	1/19/2012	JTT	SW846 CH7	
%moisture	12.9	Percent		1/19/2012	KFG	%moisture	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C585; MT:Cert0095

Friday, January 20, 2012

Page 1 of 1

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-189	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	189	RunNo:	279					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	8701	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.3	77.4	131			

Sample ID	LCS-189	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	189	RunNo:	279					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	8765	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	75.2	62.7	139			
Surr: DNOP	4.5		5.000		90.3	77.4	131			

Sample ID	1201046-011AMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	189	RunNo:	279					
Prep Date:	1/9/2012	Analysis Date:	1/11/2012	SeqNo:	9652	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	9.7	48.31	69.41	90.7	57.2	146			
Surr: DNOP	7.9		4.831		164	77.4	131			S

Sample ID	1201046-011AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	189	RunNo:	279					
Prep Date:	1/9/2012	Analysis Date:	1/11/2012	SeqNo:	9887	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	10	49.80	69.41	119	57.2	146	12.6	26.7	
Surr: DNOP	8.4		4.980		168	77.4	131	0	0	S

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-187	SampType	MBLK	TestCode	EPA Method 8015B: Gasoline Range					
Client ID	PBS	Batch ID	187	RunNo	310					
Prep Date	1/9/2012	Analysis Date	1/10/2012	SeqNo	9559	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1,000		96.4	69.7	121			

Sample ID	LCS-187	SampType	LCS	TestCode	EPA Method 8015B: Gasoline Range					
Client ID	LCSS	Batch ID	187	RunNo	310					
Prep Date	1/9/2012	Analysis Date	1/10/2012	SeqNo	9562	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	5.0	25.00	0	125	86.4	132			
Surr: BFB	1,100		1,000		107	69.7	121			

Sample ID	1201167-005AMS	SampType	MS	TestCode	EPA Method 8015B: Gasoline Range					
Client ID	BatchQC	Batch ID	187	RunNo	310					
Prep Date	1/9/2012	Analysis Date	1/10/2012	SeqNo	9563	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	34	5.0	24.75	1.958	130	72.4	149			
Surr: BFB	1,100		990.1		106	69.7	121			

Sample ID	1201167-005AMSD	SampType	MSD	TestCode	EPA Method 8015B: Gasoline Range					
Client ID	BatchQC	Batch ID	187	RunNo	310					
Prep Date	1/9/2012	Analysis Date	1/10/2012	SeqNo	9564	Units	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	4.9	24.44	1.958	114	72.4	149	13.3	19.2	
Surr: BFB	950		977.5		97.3	69.7	121	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-187	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	187	RunNo:	304					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9303	Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-187	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	187	RunNo:	304					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9303	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.8	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		95.0	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	63.1	128			
Surr: Toluene-d8	0.47		0.5000		93.8	70	130			

Sample ID: lcs-187	SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSS	Batch ID: 187		RunNo: 304							
Prep Date: 1/9/2012	Analysis Date: 1/10/2012		SeqNo: 9304		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	70.7	123			
Toluene	1.0	0.050	1.000	0	101	80	120			
Chlorobenzene	1.0	0.050	1.000	0	101	70	130			
1,1-Dichloroethene	0.98	0.050	1.000	0	98.4	63.1	148			
Trichloroethene (TCE)	0.96	0.050	1.000	0	95.9	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.2	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		95.2	70	130			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	lcs-187		SampType:	LCS		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	LCSS		Batch ID:	187		RunNo:	304				
Prep Date:	1/9/2012		Analysis Date:	1/10/2012		SeqNo:	9304		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: Dibromofluoromethane	0.56		0.5000		112	63.1	128				
Surr: Toluene-d8	0.47		0.5000		94.1	70	130				

Sample ID	1201167-006AMS		SampType:	MS		TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC		Batch ID:	187		RunNo:	304				
Prep Date:	1/9/2012		Analysis Date:	1/11/2012		SeqNo:	9305		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.049	0.9881	0	111	60	126				
Toluene	1.0	0.049	0.9881	0	106	68.7	132				
Chlorobenzene	1.0	0.049	0.9881	0	106	71.8	134				
1,1-Dichloroethene	1.0	0.049	0.9881	0	106	34.5	155				
Trichloroethene (TCE)	1.0	0.049	0.9881	0	105	47.2	121				
Surr: 1,2-Dichloroethane-d4	0.45		0.4941		90.8	70	130				
Surr: 4-Bromofluorobenzene	0.45		0.4941		90.9	70	130				
Surr: Dibromofluoromethane	0.55		0.4941		112	63.1	128				
Surr: Toluene-d8	0.45		0.4941		91.2	70	130				

Sample ID	1201167-006AMSD	SampType: MSD	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	BatchQC	Batch ID: 187	RunNo: 304							
Prep Date:	1/9/2012	Analysis Date: 1/11/2012	SeqNo: 9306		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.048	0.9551	0	106	60	126	7.97	15.7	
Toluene	0.94	0.048	0.9551	0	98.8	68.7	132	10.4	16.2	
Chlorobenzene	0.93	0.048	0.9551	0	97.5	71.8	134	11.6	14.9	
1,1-Dichloroethene	0.99	0.048	0.9551	0	104	34.5	155	5.66	31.8	
Trichloroethene (TCE)	0.92	0.048	0.9551	0	96.6	47.2	121	11.6	16.5	
Surr: 1,2-Dichloroethane-d4	0.44		0.4776		93.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.44		0.4776		91.7	70	130	0	0	
Surr: Dibromofluoromethane	0.55		0.4776		115	63.1	128	0	0	
Surr: Toluene-d8	0.43		0.4776		90.8	70	130	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-294		SampType: MBLK			TestCode: Volatiles by 8260B/1311				
Client ID:	PBS		Batch ID: 294			RunNo: 432				
Prep Date:	1/16/2012		Analysis Date: 1/17/2012			SeqNo: 12533 Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.50								
2-Butanone	ND	10								
Carbon Tetrachloride	ND	0.50								
Chlorobenzene	ND	100								
Chloroform	ND	6.0								
1,4-Dichlorobenzene	ND	7.5								
1,2-Dichloroethane (EDC)	ND	0.50								
1,1-Dichloroethene	ND	0.70								
Hexachlorobutadiene	ND	0.50								
Tetrachloroethene (PCE)	ND	0.70								
Trichloroethene (TCE)	ND	0.50								
Vinyl chloride	ND	0.20								
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		92.2	69.9	130			
Surr: 4-Bromofluorobenzene	0.19		0.2000		93.5	71.2	123			
Surr: Dibromofluoromethane	0.22		0.2000		109	73.9	134			
Surr: Toluene-d8	0.19		0.2000		96.2	81.9	122			

Sample ID	lcs-294		SampType: LCS			TestCode: Volatiles by 8260B/1311				
Client ID:	LCSS		Batch ID: 294			RunNo: 432				
Prep Date:	1/16/2012		Analysis Date: 1/17/2012			SeqNo: 12534 Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.40	0.10	0.4000	0	101	51.1	171			
Chlorobenzene	0.39	0.10	0.4000	0	96.4	36.1	191			
1,1-Dichloroethene	0.39	0.10	0.4000	0	98.5	49.1	162			
Trichloroethene (TCE)	0.36	0.10	0.4000	0	89.4	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		90.4	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		100	71.2	123			
Surr: Dibromofluoromethane	0.21		0.2000		107	73.9	134			
Surr: Toluene-d8	0.19		0.2000		94.9	81.9	122			

Sample ID	1201183-002BMS		SampType: MS			TestCode: Volatiles by 8260B/1311				
Client ID:	T-35-1		Batch ID: 294			RunNo: 432				
Prep Date:			Analysis Date: 1/17/2012			SeqNo: 12537 Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.42	0.10	0.4000	0	105	51.1	171			
Chlorobenzene	0.38	0.10	0.4000	0	94.2	36.1	191			
1,1-Dichloroethene	0.40	0.10	0.4000	0	99.3	49.1	162			
Trichloroethene (TCE)	0.37	0.10	0.4000	0	91.6	41.2	166			
Surr: 1,2-Dichloroethane-d4	0.19		0.2000		96.9	69.9	130			
Surr: 4-Bromofluorobenzene	0.20		0.2000		98.0	71.2	123			

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	1201183-002BMS	SampType: MS	TestCode: Volatiles by 8260B/1311							
Client ID:	T-35-1	Batch ID:	294	RunNo:		432				
Prep Date:	Analysis Date:		1/17/2012		SeqNo:	12537		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.22		0.2000		112	73.9	134			
Surr: Toluene-d8	0.19		0.2000		93.8	81.9	122			

Sample ID	1201183-002BMSD		SampType: MSD	TestCode: Volatiles by 8260B/1311							
Client ID:	T-35-1		Batch ID:	294		RunNo:		432			
Prep Date:			Analysis Date:	1/17/2012		SeqNo:		12538		Units:	mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.40	0.10	0.4000	0	99.9	51.1	171	4.74	0		
Chlorobenzene	0.37	0.10	0.4000	0	93.5	36.1	191	0.772	0		
1,1-Dichloroethene	0.39	0.10	0.4000	0	97.3	49.1	162	2.12	0		
Trichloroethene (TCE)	0.34	0.10	0.4000	0	85.8	41.2	166	6.53	0		
Surr: 1,2-Dichloroethane-d4	0.18		0.2000		92.2	69.9	130	0	0		
Surr: 4-Bromofluorobenzene	0.19		0.2000		93.2	71.2	123	0	0		
Surr: Dibromofluoromethane	0.22		0.2000		111	73.9	134	0	0		
Surr: Toluene-d8	0.19		0.2000		94.6	81.9	122	0	0		

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-194	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBS	Batch ID:	194	RunNo:	290					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9117	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-194	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	PBS	Batch ID:	194	RunNo:	290					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9117	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.3		3.330		69.0	24.9	115			
Surr: 2-Fluorobiphenyl	1.0		1.670		62.4	26.2	108			
Surr: 2-Fluorophenol	2.1		3.330		62.6	17.7	98			
Surr: 4-Terphenyl-d14	1.2		1.670		74.6	33.8	108			
Surr: Nitrobenzene-d5	1.2		1.670		71.9	23	109			
Surr: Phenol-d5	2.2		3.330		64.7	22.1	103			

Sample ID	lcs-194	SampType:	LCS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS	Batch ID:	194	RunNo:	290					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9118	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	ics-194	SampType:	LCS	TestCode:	EPA Method 8270C: Semivolatiles					
Client ID:	LCSS	Batch ID:	194	RunNo:	290					
Prep Date:	1/9/2012	Analysis Date:	1/10/2012	SeqNo:	9118	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.0	0.20	1.670	0	60.4	49.7	98.1			
4-Chloro-3-methylphenol	2.0	0.50	3.330	0	59.4	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	63.5	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	63.5	41	97.4			
2,4-Dinitrotoluene	1.0	0.50	1.670	0	60.0	44.4	104			
N-Nitrosodi-n-propylamine	0.92	0.20	1.670	0	55.4	39.1	86.9			
4-Nitrophenol	1.7	0.25	3.330	0	51.0	44.2	107			
Pentachlorophenol	1.6	0.40	3.330	0	46.8	36.2	80			
Phenol	2.2	0.20	3.330	0	65.3	42.7	92.7			
Pyrene	0.93	0.20	1.670	0	55.8	34.7	98.8			
1,2,4-Trichlorobenzene	0.95	0.20	1.670	0	56.8	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.6		3.330		78.1	24.9	115			
Surr: 2-Fluorobiphenyl	1.1		1.670		67.0	26.2	108			
Surr: 2-Fluorophenol	2.1		3.330		64.2	17.7	98			
Surr: 4-Terphenyl-d14	1.3		1.670		80.7	33.8	108			
Surr: Nitrobenzene-d5	1.2		1.670		72.1	23	109			
Surr: Phenol-d5	2.3		3.330		70.5	22.1	103			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	mb-321	SampType:	MBLK	TestCode:	EPA Method 8270C TCLP					
Client ID:	PBS	Batch ID:	321	RunNo:	463					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	13368	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	ND	0.13								
Hexachlorobenzene	ND	0.13								
Hexachlorobutadiene	ND	0.50								
Hexachloroethane	ND	3.0								
Nitrobenzene	ND	2.0								
Pentachlorophenol	ND	100								
Pyridine	ND	5.0								
2,4,5-Trichlorophenol	ND	400								
2,4,6-Trichlorophenol	ND	2.0								
Cresols, Total	ND	200								
2-Methylphenol	ND	200								
3+4-Methylphenol	ND	200								
Phenol	ND	200								
Surr: 2,4,6-Tribromophenol	0.17		0.2000		85.4	18.2	136			
Surr: 2-Fluorobiphenyl	0.11		0.1000		106	40.5	108			
Surr: 2-Fluorophenol	0.14		0.2000		72.2	23	101			
Surr: 4-Terphenyl-d14	0.092		0.1000		91.6	40.9	112			
Surr: Nitrobenzene-d5	0.11		0.1000		109	41	115			
Surr: Phenol-d5	0.11		0.2000		57.4	23.4	73.6			

Sample ID	lcs-321		SampType: LCS		TestCode: EPA Method 8270C TCLP					
Client ID:	LCSS		Batch ID: 321		RunNo: 463					
Prep Date:	1/18/2012		Analysis Date: 1/19/2012		SeqNo: 13369		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.083	0.010	0.1000	0	83.4	18.2	108			
Hexachlorobenzene	0.064	0.010	0.1000	0	63.6	34.2	74.5			
Hexachlorobutadiene	0.069	0.010	0.1000	0	68.9	31.3	88.5			
Hexachloroethane	0.068	0.010	0.1000	0	68.4	31.6	94.6			
Nitrobenzene	0.085	0.010	0.1000	0	85.3	39.7	107			
Pentachlorophenol	0.040	0.010	0.1000	0	39.6	15.9	86.7			
Pyridine	0.051	0.010	0.1000	0	51.4	14.7	73.6			
2,4,5-Trichlorophenol	0.066	0.010	0.1000	0	65.6	18.9	102			
2,4,6-Trichlorophenol	0.054	0.010	0.1000	0	53.5	12.3	103			
Cresols, Total	0.23	0.010	0.3000	0	77.5	25.9	99.2			
2-Methylphenol	0.074	0.010	0.1000	0	73.7	22	81.7			
3+4-Methylphenol	0.16	0.010	0.2000	0	79.5	2.89	157			
Surr: 2,4,6-Tribromophenol	0.15		0.2000		74.2	18.2	136			
Surr: 2-Fluorobiphenyl	0.087		0.1000		87.0	40.5	108			
Surr: 2-Fluorophenol	0.11		0.2000		54.3	23	101			
Surr: 4-Terphenyl-d14	0.076		0.1000		76.1	40.9	112			

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	ics-321	SampType:	LCS	TestCode:	EPA Method 8270C TCLP					
Client ID:	LCSS	Batch ID:	321	RunNo:	463					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	13369	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	0.085		0.1000		85.0	41	115			
Surr: Phenol-d5	0.095		0.2000		47.7	23.4	73.6			

Sample ID	1201183-001Bms	SampType:	MS	TestCode:	EPA Method-8270C TCLP					
Client ID:	T-35-5	Batch ID:	321	RunNo:	463					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	13370					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.080	0.010	0.1000	0	79.6	9.57	115			
Hexachlorobenzene	0.064	0.010	0.1000	0	63.8	15.9	96.9			
Hexachlorobutadiene	0.064	0.010	0.1000	0	64.5	21.1	97.9			
Hexachloroethane	0.063	0.010	0.1000	0	63.2	18.1	105			
Nitrobenzene	0.085	0.010	0.1000	0	84.7	23.3	123			
Pentachlorophenol	0.048	0.010	0.1000	0	48.2	10	150			
Pyridine	0.052	0.010	0.1000	0	52.1	9.15	86.2			
2,4,5-Trichlorophenol	0.071	0.010	0.1000	0	70.6	8.46	119			
2,4,6-Trichlorophenol	0.065	0.010	0.1000	0	65.3	4.44	115			
Cresols, Total	0.21	0.010	0.3000	0	70.0	8.35	114			
2-Methylphenol	0.065	0.010	0.1000	0	65.0	17.5	78.8			
3-4-Methylphenol	0.15	0.010	0.2000	0	72.6	17.5	78.8			
Surr: 2,4,6-Tribromophenol	0.17		0.2000		85.4	18.2	136			
Surr: 2-Fluorobiphenyl	0.090		0.1000		89.5	40.5	108			
Surr: 2-Fluorophenol	0.12		0.2000		59.7	23	101			
Surr: 4-Terphenyl-d14	0.081		0.1000		80.7	40.9	112			
Surr: Nitrobenzene-d5	0.084		0.1000		84.4	41	115			
Surr: Phenol-d5	0.093		0.2000		46.6	23.4	73.6			

Sample ID	1201183-001Bmsd	SampType:	MSD	TestCode:	EPA Method 8270C TCLP					
Client ID:	T-35-5	Batch ID:	321	RunNo:	463					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	13371					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	0.081	0.010	0.1000	0	81.2	9.57	115	1.99	20	
Hexachlorobenzene	0.062	0.010	0.1000	0	62.1	15.9	96.9	2.60	20	
Hexachlorobutadiene	0.061	0.010	0.1000	0	61.1	21.1	97.9	5.35	20	
Hexachloroethane	0.065	0.010	0.1000	0	64.9	18.1	105	2.72	20	
Nitrobenzene	0.082	0.010	0.1000	0	82.3	23.3	123	2.92	20	
Pentachlorophenol	0.050	0.010	0.1000	0	50.4	10	150	4.38	20	
Pyridine	0.053	0.010	0.1000	0	52.7	9.15	86.2	1.11	20	
2,4,5-Trichlorophenol	0.072	0.010	0.1000	0	72.3	8.46	119	2.41	20	
2,4,6-Trichlorophenol	0.064	0.010	0.1000	0	63.7	4.44	115	2.48	20	
Cresols, Total	0.21	0.010	0.3000	0	68.5	8.35	114	2.16	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	1201183-001Bmsd	SampType:	MSD	TestCode:	EPA Method 8270C TCLP					
Client ID:	T-35-5	Batch ID:	321	RunNo:	463					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	13371	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylphenol	0.064	0.010	0.1000	0	63.5	17.5	78.8	0	20	
3+4-Methylphenol	0.14	0.010	0.2000	0	71.0	17.5	78.8	0	20	
Surr: 2,4,6-Tribromophenol	0.16		0.2000		79.7	18.2	136	0	0	
Surr: 2-Fluorobiphenyl	0.086		0.1000		85.6	40.5	108	0	0	
Surr: 2-Fluorophenol	0.12		0.2000		59.6	23	101	0	0	
Surr: 4-Terphenyl-d14	0.078		0.1000		78.3	40.9	112	0	0	
Surr: Nitrobenzene-d5	0.085		0.1000		84.5	41	115	0	0	
Surr: Phenol-d5	0.094		0.2000		47.0	23.4	73.6	0	0	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-220	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	220	RunNo:	318					
Prep Date:	1/11/2012	Analysis Date:	1/11/2012	SeqNo:	9633	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-220		SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS		Batch ID:	220		RunNo:	318				
Prep Date:	1/11/2012		Analysis Date:	1/11/2012		SeqNo:	9634		Units:	mg/kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Mercury	0.17	0.033	0.1667	0	104	80	120				

Sample ID	1201183-001AMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	T-35-5	Batch ID:	220	RunNo:	318					
Prep Date:	1/11/2012	Analysis Date:	1/11/2012	SeqNo:	9636	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1658	0.01396	104	75	125			

Sample ID	1201183-001AMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	T-35-5	Batch ID:	220	RunNo:	318					
Prep Date:	1/11/2012	Analysis Date:	1/11/2012	SeqNo:	9637	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1656	0.01396	96.8	75	125	6.71	20	

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-331	SampType:	MBLK	TestCode:	MERCURY, TCLP					
Client ID:	PBW	Batch ID:	331	RunNo:	443					
Prep Date:	1/18/2012	Analysis Date:	1/18/2012	SeqNo:	12847	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020								

Sample ID	LCS-331	SampType:	LCS	TestCode:	MERCURY, TCLP					
Client ID:	LCSW	Batch ID:	331	RunNo:	443					
Prep Date:	1/18/2012	Analysis Date:	1/18/2012	SeqNo:	12848	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	101	80	120			

Sample ID	1201183-002AMS	SampType:	MS	TestCode:	MERCURY, TCLP					
Client ID:	T-35-1	Batch ID:	331	RunNo:	443					
Prep Date:	1/18/2012	Analysis Date:	1/18/2012	SeqNo:	12851	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	88.0	75	125			

Sample ID	1201183-002AMSD	SampType:	MSD	TestCode:	MERCURY, TCLP					
Client ID:	T-35-1	Batch ID:	331	RunNo:	443					
Prep Date:	1/18/2012	Analysis Date:	1/18/2012	SeqNo:	12852	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.020	0.005000	0	88.9	75	125	0	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-206	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	206	RunNo:	308					
Prep Date:	1/10/2012	Analysis Date:	1/11/2012	SeqNo:	9471	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID	LCS-206	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	206	RunNo:	308					
Prep Date:	1/10/2012	Analysis Date:	1/11/2012	SeqNo:	9472	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	2.5	25.00	0	96.7	80	120			
Barium	23	0.10	25.00	0.03950	90.2	80	120			
Cadmium	23	0.10	25.00	0	91.3	80	120			
Chromium	23	0.30	25.00	0.05350	92.0	80	120			
Lead	23	0.25	25.00	0	90.9	80	120			
Selenium	22	2.5	25.00	0.5060	87.1	80	120			
Silver	4.5	0.25	5.000	0	89.7	80	120			

Sample ID	1201171-001AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	206	RunNo:	308					
Prep Date:	1/10/2012	Analysis Date:	1/11/2012	SeqNo:	9500	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	24.35	0	106	75	125			
Barium	24	0.10	24.35	0.5107	98.4	75	125			
Cadmium	24	0.10	24.35	0	98.8	75	125			
Chromium	26	0.30	24.35	3.458	91.2	75	125			
Lead	26	0.25	24.35	3.571	92.3	75	125			
Selenium	24	2.5	24.35	0	98.3	75	125			

Sample ID	1201171-001AMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	206	RunNo:	308					
Prep Date:	1/10/2012	Analysis Date:	1/11/2012	SeqNo:	9501	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	26	2.5	24.56	0	107	75	125	1.80	20	
Barium	25	0.10	24.56	0.5107	97.7	75	125	0.178	20	
Cadmium	24	0.10	24.56	0	99.7	75	125	1.86	20	
Chromium	30	0.30	24.56	3.458	106	75	125	14.0	20	

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	1201171-001AMSD			SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	BatchQC		Batch ID:	206		RunNo:	308				
Prep Date:	1/10/2012		Analysis Date:	1/11/2012		SeqNo:	9501		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val.	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Lead	25	0.25	24.56	3.571	89.0	75	125	2.38	20		
Selenium	25	2.5	24.56	0	100	75	125	2.68	20		

Qualifiers:

*X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	LCS-322	SampType:	LCS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	LCSW	Batch ID:	322	RunNo:	447					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	12908	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0	103	80	120			
Barium	ND	100	0.5000	0	91.0	80	120			
Cadmium	ND	1.0	0.5000	0	97.5	80	120			
Chromium	ND	5.0	0.5000	0	93.4	80	120			
Lead	ND	5.0	0.5000	0	89.6	80	120			
Selenium	ND	1.0	0.5000	0	99.8	80	120			
Silver	ND	5.0	0.1000	0	100	80	120			

Sample ID	1201183-001AMS	SampType:	MS	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	T-35-5	Batch ID:	322	RunNo:	447					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	12910	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0.007170	104	75	125			
Cadmium	ND	1.0	0.5000	0	99.3	75	125			
Chromium	ND	5.0	0.5000	0.001020	90.9	75	125			
Lead	ND	5.0	0.5000	0	86.4	75	125			
Selenium	ND	1.0	0.5000	0	97.1	75	125			
Silver	ND	5.0	0.1000	0	101	75	125			

Sample ID	1201183-001AMSD	SampType:	MSD	TestCode: EPA Method 6010B: TCLP Metals						
Client ID:	T-35-5	Batch ID:	322	RunNo: 447						
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo: 12911		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0	0.5000	0.007170	101	75	125	0	20	
Cadmium	ND	1.0	0.5000	0	95.4	75	125	0	20	
Chromium	ND	5.0	0.5000	0.001020	88.1	75	125	0	20	
Lead	ND	5.0	0.5000	0	83.6	75	125	0	20	
Selenium	ND	1.0	0.5000	0	93.4	75	125	0	20	
Silver	ND	5.0	0.1000	0	97.5	75	125	0	20	

Sample ID	MB-322	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	322	RunNo:	447					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	12922	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	5.0								
Barium	ND	100								
Cadmium	ND	1.0								
Chromium	ND	5.0								
Lead	ND	5.0								

Qualifiers:

*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1201183

24-Jan-12

Client: Western Refining Southwest, Gallup

Project: Tank 35 Cleanup

Sample ID	MB-322	SampType:	MBLK	TestCode:	EPA Method 6010B: TCLP Metals					
Client ID:	PBW	Batch ID:	322	RunNo:	447					
Prep Date:	1/18/2012	Analysis Date:	1/19/2012	SeqNo:	12922	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	1.0								
Silver	ND	5.0								

Qualifiers:

* / X Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
RL Reporting Detection Limit

Page 33 of 33

Turn-Around Time:

<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Rush
Project Name: TANK 35 Cleanup	
Project #: N/A	
Project Manager: BECK LARSEN	

Sampler: A. Dorsey J.TSO
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 4.3
 Date: 11/1/00

Container Type and #	Preservative Type	HEAL No. 170183
3-802	N/A	-1
3-802	N/A	-2

[illegible]

contracted to other accredited laboratories. This serves as notice of this



www.hallenvironmental.com

Analysis Request

Project Manager:
BECK LARSEN

Sampler: A. Dorsey J.TSO
 On Ice: ☒ Yes ☐ No
 Sample Temperature: 4.3
 Date: 10/1/01

Container Type and #	Preservative Type	HEAL No. 170183
3-802	N/A	-1
3-802	N/A	-2

[illegible]

contracted to other accredited laboratories. This serves as notice of this

Remarks:	11/6/12 BL Requested TCLP READS, TCLP 840, TCLP 8270 & KCI on a Resh At 11/6/12
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if necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



TOTAL + TCLP

(Revised)

COVER LETTER

Friday, January 06, 2012

Beck Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: Tank 35 Clean Up

Order No.: 1112721

Dear Beck Larsen:

Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 12/16/2011 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. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

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

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup Client Sample ID: T-35-1
 Lab Order: 1112721 Collection Date: 12/15/2011 10:45:00 AM
 Project: Tank 35 Clean Up Date Received: 12/16/2011
 Lab ID: 1112721-01 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	21000	510		mg/Kg	50	12/19/2011 12:30:15 PM
Motor Oil Range Organics (MRO)	3800	2500		mg/Kg	50	12/19/2011 12:30:15 PM
Surr: DNOP	0	77.4-131	S	%REC	50	12/19/2011 12:30:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	49		mg/Kg	10	12/20/2011 1:46:45 PM
Surr: BFB	95.2	69.7-121		%REC	10	12/20/2011 1:46:45 PM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	12/19/2011 1:54:28 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	12/30/2011 1:32:41 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGS
Arsenic	ND	13		mg/Kg	5	12/19/2011 12:43:25 PM
Barium	220	0.50		mg/Kg	5	12/19/2011 12:43:25 PM
Cadmium	ND	0.50		mg/Kg	5	12/19/2011 12:43:25 PM
Chromium	12	1.5		mg/Kg	5	12/19/2011 12:43:25 PM
Lead	5.5	1.3		mg/Kg	5	12/19/2011 12:43:25 PM
Selenium	ND	13		mg/Kg	5	12/19/2011 12:43:25 PM
Silver	ND	1.3		mg/Kg	5	12/19/2011 12:43:25 PM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/3/2012 8:35:20 AM
Barium	ND	100		mg/L	5	1/3/2012 9:38:39 AM
Cadmium	ND	1.0		mg/L	1	1/3/2012 8:35:20 AM
Chromium	ND	5.0		mg/L	1	1/3/2012 8:35:20 AM
Lead	ND	5.0		mg/L	1	1/3/2012 8:35:20 AM
Selenium	ND	1.0		mg/L	1	1/3/2012 8:35:20 AM
Silver	ND	5.0		mg/L	1	1/3/2012 8:35:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Acenaphthylene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Aniline	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Anthracene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Azobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Benz(a)anthracene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Lab Order: 1112721

Collection Date: 12/15/2011 10:45:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Benzoic acid	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
Benzyl alcohol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Carbazole	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
4-Chloroaniline	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	12/21/2011 12:22:12 AM
2-Chlorophenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Chrysene	4.6	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	12/21/2011 12:22:12 AM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Dibenzofuran	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	12/21/2011 12:22:12 AM
Diethyl phthalate	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Dimethyl phthalate	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
2,4-Dichlorophenol	ND	3.9		mg/Kg	1	12/21/2011 12:22:12 AM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	12/21/2011 12:22:12 AM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
2,4-Dinitrophenol	ND	3.9		mg/Kg	1	12/21/2011 12:22:12 AM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
Fluoranthene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Fluorene	5.9	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Hexachlorobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Hexachloroethane	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Lab Order: 1112721

Collection Date: 12/15/2011 10:45:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Isophorone	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
1-Methylnaphthalene	2.9	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
2-Methylphenol	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
3+4-Methylphenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Naphthalene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
2-Nitroaniline	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
3-Nitroaniline	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
4-Nitroaniline	ND	3.9		mg/Kg	1	12/21/2011 12:22:12 AM
Nitrobenzene	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
2-Nitrophenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
4-Nitrophenol	ND	2.5		mg/Kg	1	12/21/2011 12:22:12 AM
Pentachlorophenol	ND	3.9		mg/Kg	1	12/21/2011 12:22:12 AM
Phenanthrene	36	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Phenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Pyrene	6.6	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Pyridine	ND	4.9		mg/Kg	1	12/21/2011 12:22:12 AM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	12/21/2011 12:22:12 AM
Surr: 2,4,6-Tribromophenol	0	24.9-115	S	%REC	1	12/21/2011 12:22:12 AM
Surr: 2-Fluorobiphenyl	95.4	26.2-108		%REC	1	12/21/2011 12:22:12 AM
Surr: 2-Fluorophenol	83.9	17.7-98		%REC	1	12/21/2011 12:22:12 AM
Surr: 4-Terphenyl-d14	0	33.8-108	S	%REC	1	12/21/2011 12:22:12 AM
Surr: Nitrobenzene-d5	82.0	23-109		%REC	1	12/21/2011 12:22:12 AM
Surr: Phenol-d5	80.5	22.1-103		%REC	1	12/21/2011 12:22:12 AM

EPA METHOD 8270C TCLP

Analyst: JDC

2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/3/2012 1:06:10 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/3/2012 1:06:10 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/3/2012 1:06:10 PM
Hexachloroethane	ND	3.0		mg/L	1	1/3/2012 1:06:10 PM
Nitrobenzene	ND	2.0		mg/L	1	1/3/2012 1:06:10 PM
Pentachlorophenol	ND	100		mg/L	1	1/3/2012 1:06:10 PM
Pyridine	ND	5.0		mg/L	1	1/3/2012 1:06:10 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/3/2012 1:06:10 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/3/2012 1:06:10 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Lab Order: 1112721

Collection Date: 12/15/2011 10:45:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Cresols, Total	ND	200		mg/L	1	1/3/2012 1:06:10 PM
Surr: 2,4,6-Tribromophenol	76.5	18.2-136		%REC	1	1/3/2012 1:06:10 PM
Surr: 2-Fluorobiphenyl	72.5	40.5-108		%REC	1	1/3/2012 1:06:10 PM
Surr: 2-Fluorophenol	47.6	23-101		%REC	1	1/3/2012 1:06:10 PM
Surr: 4-Terphenyl-d14	80.0	40.9-112		%REC	1	1/3/2012 1:06:10 PM
Surr: Nitrobenzene-d5	75.6	41-115		%REC	1	1/3/2012 1:06:10 PM
Surr: Phenol-d5	35.9	23.4-73.6		%REC	1	1/3/2012 1:06:10 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Toluene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Ethylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Methyl tert-butyl ether (MTBE)	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2,4-Trimethylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,3,5-Trimethylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2-Dichloroethane (EDC)	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2-Dibromoethane (EDB)	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Naphthalene	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
1-Methylnaphthalene	2.1	2.0		mg/Kg	10	12/19/2011 12:31:32 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	12/19/2011 12:31:32 PM
Acetone	ND	7.4		mg/Kg	10	12/19/2011 12:31:32 PM
Bromobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Bromodichloromethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Bromoform	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Bromomethane	ND	1.5		mg/Kg	10	12/19/2011 12:31:32 PM
2-Butanone	ND	4.9		mg/Kg	10	12/19/2011 12:31:32 PM
Carbon disulfide	ND	4.9		mg/Kg	10	12/19/2011 12:31:32 PM
Carbon tetrachloride	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Chlorobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Chloroethane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Chloroform	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Chloromethane	ND	1.5		mg/Kg	10	12/19/2011 12:31:32 PM
2-Chlorotoluene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
4-Chlorotoluene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
cis-1,2-DCE	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
cis-1,3-Dichloropropene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2-Dibromo-3-chloropropane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Dibromochloromethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Dibromomethane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
1,2-Dichlorobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Lab Order: 1112721

Collection Date: 12/15/2011 10:45:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
1,3-Dichlorobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,4-Dichlorobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Dichlorodifluoromethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,1-Dichloroethane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
1,1-Dichloroethene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2-Dichloropropane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,3-Dichloropropane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
2,2-Dichloropropane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
1,1-Dichloropropene	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
2-Hexanone	ND	4.9		mg/Kg	10	12/19/2011 12:31:32 PM
Isopropylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
4-Isopropyltoluene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
4-Methyl-2-pentanone	ND	4.9		mg/Kg	10	12/19/2011 12:31:32 PM
Methylene chloride	ND	1.5		mg/Kg	10	12/19/2011 12:31:32 PM
n-Butylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
n-Propylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
sec-Butylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Styrene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
tert-Butylbenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,1,1,2-Tetrachloroethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,1,2,2-Tetrachloroethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Tetrachloroethene (PCE)	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
trans-1,2-DCE	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
trans-1,3-Dichloropropene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2,3-Trichlorobenzene	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
1,2,4-Trichlorobenzene	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,1,1-Trichloroethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,1,2-Trichloroethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Trichloroethene (TCE)	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Trichlorofluoromethane	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
1,2,3-Trichloropropane	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Vinyl chloride	ND	0.49		mg/Kg	10	12/19/2011 12:31:32 PM
Xylenes, Total	ND	0.99		mg/Kg	10	12/19/2011 12:31:32 PM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	10	12/19/2011 12:31:32 PM
Surr: 4-Bromofluorobenzene	88.3	70-130		%REC	10	12/19/2011 12:31:32 PM
Surr: Dibromofluoromethane	94.8	63.1-128		%REC	10	12/19/2011 12:31:32 PM
Surr: Toluene-d8	104	70-130		%REC	10	12/19/2011 12:31:32 PM

VOLATILES BY 8260B/1311

Analyst: MMS

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-1

Lab Order: 1112721

Collection Date: 12/15/2011 10:45:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: MMS
Benzene	ND	0.50		mg/L	1	12/29/2011 4:00:15 PM
2-Butanone	ND	10		mg/L	1	12/29/2011 4:00:15 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/29/2011 4:00:15 PM
Chlorobenzene	ND	100		mg/L	1	12/29/2011 4:00:15 PM
Chloroform	ND	6.0		mg/L	1	12/29/2011 4:00:15 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/29/2011 4:00:15 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/29/2011 4:00:15 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/29/2011 4:00:15 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/29/2011 4:00:15 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/29/2011 4:00:15 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/29/2011 4:00:15 PM
Vinyl chloride	ND	0.20		mg/L	1	12/29/2011 4:00:15 PM
Surr: 1,2-Dichloroethane-d4	83.8	69.9-130		%REC	1	12/29/2011 4:00:15 PM
Surr: 4-Bromofluorobenzene	86.2	71.2-123		%REC	1	12/29/2011 4:00:15 PM
Surr: Dibromofluoromethane	85.3	73.9-134		%REC	1	12/29/2011 4:00:15 PM
Surr: Toluene-d8	89.7	81.9-122		%REC	1	12/29/2011 4:00:15 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** T-35-2
Lab Order: 1112721 **Collection Date:** 12/15/2011 10:55:00 AM
Project: Tank 35 Clean Up **Date Received:** 12/16/2011
Lab ID: 1112721-02 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	12/19/2011 8:16:11 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	12/19/2011 8:16:11 AM
Surr: DNOP	109	77.4-131		%REC	1	12/19/2011 8:16:11 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/20/2011 4:18:38 AM
Surr: BFB	97.1	69.7-121		%REC	1	12/20/2011 4:18:38 AM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	12/19/2011 1:59:51 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	12/30/2011 1:34:28 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGS
Arsenic	ND	5.0		mg/Kg	2	12/20/2011 9:54:41 AM
Barium	280	1.0		mg/Kg	10	12/20/2011 10:02:32 AM
Cadmium	ND	0.20		mg/Kg	2	12/20/2011 9:54:41 AM
Chromium	11	0.60		mg/Kg	2	12/20/2011 9:54:41 AM
Lead	3.3	0.50		mg/Kg	2	12/20/2011 9:54:41 AM
Selenium	ND	5.0		mg/Kg	2	12/20/2011 9:54:41 AM
Silver	ND	0.50		mg/Kg	2	12/20/2011 9:54:41 AM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/3/2012 8:37:31 AM
Barium	ND	100		mg/L	5	1/3/2012 9:40:37 AM
Cadmium	ND	1.0		mg/L	1	1/3/2012 8:37:31 AM
Chromium	ND	5.0		mg/L	1	1/3/2012 8:37:31 AM
Lead	ND	5.0		mg/L	1	1/3/2012 8:37:31 AM
Selenium	ND	1.0		mg/L	1	1/3/2012 8:37:31 AM
Silver	ND	5.0		mg/L	1	1/3/2012 8:37:31 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Acenaphthylene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Aniline	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Anthracene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Azobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-2

Lab Order: 1112721

Collection Date: 12/15/2011 10:55:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Benzoic acid	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Carbazole	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	12/20/2011 10:26:42 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Chrysene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	12/20/2011 10:26:42 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Dibenzofuran	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	12/20/2011 10:26:42 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
2,4-Dichlorophenol	ND	0.39		mg/Kg	1	12/20/2011 10:26:42 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	12/20/2011 10:26:42 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
2,4-Dinitrophenol	ND	0.39		mg/Kg	1	12/20/2011 10:26:42 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
Fluoranthene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Fluorene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Hexachloroethane	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-2

Lab Order: 1112721

Collection Date: 12/15/2011 10:55:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Isophorone	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
2-Methylphenol	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Naphthalene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
4-Nitroaniline	ND	0.39		mg/Kg	1	12/20/2011 10:26:42 PM
Nitrobenzene	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	12/20/2011 10:26:42 PM
Pentachlorophenol	ND	0.39		mg/Kg	1	12/20/2011 10:26:42 PM
Phenanthrene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Phenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Pyrene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Pyridine	ND	0.49		mg/Kg	1	12/20/2011 10:26:42 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	12/20/2011 10:26:42 PM
Surr: 2,4,6-Tribromophenol	88.8	24.9-115		%REC	1	12/20/2011 10:26:42 PM
Surr: 2-Fluorobiphenyl	60.6	26.2-108		%REC	1	12/20/2011 10:26:42 PM
Surr: 2-Fluorophenol	89.1	17.7-98		%REC	1	12/20/2011 10:26:42 PM
Surr: 4-Terphenyl-d14	86.5	33.8-108		%REC	1	12/20/2011 10:26:42 PM
Surr: Nitrobenzene-d5	81.5	23-109		%REC	1	12/20/2011 10:26:42 PM
Surr: Phenol-d5	86.4	22.1-103		%REC	1	12/20/2011 10:26:42 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/3/2012 2:33:13 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/3/2012 2:33:13 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/3/2012 2:33:13 PM
Hexachloroethane	ND	3.0		mg/L	1	1/3/2012 2:33:13 PM
Nitrobenzene	ND	2.0		mg/L	1	1/3/2012 2:33:13 PM
Pentachlorophenol	ND	100		mg/L	1	1/3/2012 2:33:13 PM
Pyridine	ND	5.0		mg/L	1	1/3/2012 2:33:13 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/3/2012 2:33:13 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/3/2012 2:33:13 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-2

Lab Order: 1112721

Collection Date: 12/15/2011 10:55:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Cresols, Total	ND	200		mg/L	1	1/3/2012 2:33:13 PM
Surr: 2,4,6-Tribromophenol	75.7	18.2-136		%REC	1	1/3/2012 2:33:13 PM
Surr: 2-Fluorobiphenyl	69.8	40.5-108		%REC	1	1/3/2012 2:33:13 PM
Surr: 2-Fluorophenol	48.8	23-101		%REC	1	1/3/2012 2:33:13 PM
Surr: 4-Terphenyl-d14	70.9	40.9-112		%REC	1	1/3/2012 2:33:13 PM
Surr: Nitrobenzene-d5	78.3	41-115		%REC	1	1/3/2012 2:33:13 PM
Surr: Phenol-d5	35.2	23.4-73.6		%REC	1	1/3/2012 2:33:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Toluene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Methyl tert-butyl ether (MTBE)	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2,4-Trimethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,3,5-Trimethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2-Dichloroethane (EDC)	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2-Dibromoethane (EDB)	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Naphthalene	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
1-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 1:27:33 PM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 1:27:33 PM
Acetone	ND	0.71		mg/Kg	1	12/19/2011 1:27:33 PM
Bromobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Bromodichloromethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Bromoform	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Bromomethane	ND	0.14		mg/Kg	1	12/19/2011 1:27:33 PM
2-Butanone	ND	0.47		mg/Kg	1	12/19/2011 1:27:33 PM
Carbon disulfide	ND	0.47		mg/Kg	1	12/19/2011 1:27:33 PM
Carbon tetrachloride	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Chlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Chloroethane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Chloroform	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Chloromethane	ND	0.14		mg/Kg	1	12/19/2011 1:27:33 PM
2-Chlorotoluene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
4-Chlorotoluene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
cis-1,2-DCE	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
cis-1,3-Dichloropropene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2-Dibromo-3-chloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Dibromochloromethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Dibromomethane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
1,2-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-2

Lab Order: 1112721

Collection Date: 12/15/2011 10:55:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
1,3-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,4-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Dichlorodifluoromethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,1-Dichloroethane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
1,1-Dichloroethene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2-Dichloropropane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,3-Dichloropropane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
2,2-Dichloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
1,1-Dichloropropene	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Hexachlorobutadiene	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
2-Hexanone	ND	0.47		mg/Kg	1	12/19/2011 1:27:33 PM
Isopropylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
4-Isopropyltoluene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
4-Methyl-2-pentanone	ND	0.47		mg/Kg	1	12/19/2011 1:27:33 PM
Methylene chloride	ND	0.14		mg/Kg	1	12/19/2011 1:27:33 PM
n-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
n-Propylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
sec-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Styrene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
tert-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,1,1,2-Tetrachloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,1,2,2-Tetrachloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Tetrachloroethene (PCE)	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
trans-1,2-DCE	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
trans-1,3-Dichloropropene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2,3-Trichlorobenzene	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
1,2,4-Trichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,1,1-Trichloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,1,2-Trichloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Trichloroethene (TCE)	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Trichlorofluoromethane	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
1,2,3-Trichloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Vinyl chloride	ND	0.047		mg/Kg	1	12/19/2011 1:27:33 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/19/2011 1:27:33 PM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	12/19/2011 1:27:33 PM
Surr: 4-Bromofluorobenzene	86.4	70-130		%REC	1	12/19/2011 1:27:33 PM
Surr: Dibromofluoromethane	102	63.1-128		%REC	1	12/19/2011 1:27:33 PM
Surr: Toluene-d8	97.4	70-130		%REC	1	12/19/2011 1:27:33 PM

VOLATILES BY 8260B/1311

Analyst: MMS

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1112721
Project: Tank 35 Clean Up
Lab ID: 1112721-02

Client Sample ID: T-35-2
Collection Date: 12/15/2011 10:55:00 AM
Date Received: 12/16/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: MMS
Benzene	ND	0.50		mg/L	1	12/29/2011 5:23:31 PM
2-Butanone	ND	10		mg/L	1	12/29/2011 5:23:31 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/29/2011 5:23:31 PM
Chlorobenzene	ND	100		mg/L	1	12/29/2011 5:23:31 PM
Chloroform	ND	6.0		mg/L	1	12/29/2011 5:23:31 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/29/2011 5:23:31 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/29/2011 5:23:31 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/29/2011 5:23:31 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/29/2011 5:23:31 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/29/2011 5:23:31 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/29/2011 5:23:31 PM
Vinyl chloride	ND	0.20		mg/L	1	12/29/2011 5:23:31 PM
Surr: 1,2-Dichloroethane-d4	74.6	69.9-130		%REC	1	12/29/2011 5:23:31 PM
Surr: 4-Bromofluorobenzene	78.7	71.2-123		%REC	1	12/29/2011 5:23:31 PM
Surr: Dibromofluoromethane	80.9	73.9-134		%REC	1	12/29/2011 5:23:31 PM
Surr: Toluene-d8	85.7	81.9-122		%REC	1	12/29/2011 5:23:31 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-3

Lab Order: 1112721

Collection Date: 12/15/2011 11:10:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	100	10		mg/Kg	1	12/19/2011 8:45:58 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	12/19/2011 8:45:58 AM
Surr: DNOP	121	77.4-131		%REC	1	12/19/2011 8:45:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/20/2011 4:47:22 AM
Surr: BFB	95.3	69.7-121		%REC	1	12/20/2011 4:47:22 AM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	12/19/2011 2:01:36 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	12/30/2011 1:36:15 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGS
Arsenic	ND	13		mg/Kg	5	12/19/2011 12:51:30 PM
Barium	140	0.50		mg/Kg	5	12/19/2011 12:51:30 PM
Cadmium	ND	0.50		mg/Kg	5	12/19/2011 12:51:30 PM
Chromium	6.7	1.5		mg/Kg	5	12/19/2011 12:51:30 PM
Lead	3.2	1.3		mg/Kg	5	12/19/2011 12:51:30 PM
Selenium	ND	13		mg/Kg	5	12/19/2011 12:51:30 PM
Silver	ND	1.3		mg/Kg	5	12/19/2011 12:51:30 PM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/3/2012 8:39:39 AM
Barium	ND	100		mg/L	5	1/3/2012 9:44:16 AM
Cadmium	ND	1.0		mg/L	1	1/3/2012 8:39:39 AM
Chromium	ND	5.0		mg/L	1	1/3/2012 8:39:39 AM
Lead	ND	5.0		mg/L	1	1/3/2012 8:39:39 AM
Selenium	ND	1.0		mg/L	1	1/3/2012 8:39:39 AM
Silver	ND	5.0		mg/L	1	1/3/2012 8:39:39 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Acenaphthylene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Aniline	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Anthracene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Azobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-3

Lab Order: 1112721

Collection Date: 12/15/2011 11:10:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Benzoic acid	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Carbazole	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
4-Chloroaniline	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	12/20/2011 10:55:37 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Chrysene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	12/20/2011 10:55:37 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Dibenzofuran	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	12/20/2011 10:55:37 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	12/20/2011 10:55:37 PM
2,4-Dimethylphenol	ND	0.59		mg/Kg	1	12/20/2011 10:55:37 PM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	12/20/2011 10:55:37 PM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
Fluoranthene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Fluorene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Hexachloroethane	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1112721
Project: Tank 35 Clean Up
Lab ID: 1112721-03

Client Sample ID: T-35-3
Collection Date: 12/15/2011 11:10:00 AM
Date Received: 12/16/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Isophorone	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
2-Methylphenol	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Naphthalene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
4-Nitroaniline	ND	0.79		mg/Kg	1	12/20/2011 10:55:37 PM
Nitrobenzene	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	12/20/2011 10:55:37 PM
Pentachlorophenol	ND	0.79		mg/Kg	1	12/20/2011 10:55:37 PM
Phenanthrene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Phenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Pyrene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Pyridine	ND	0.99		mg/Kg	1	12/20/2011 10:55:37 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	12/20/2011 10:55:37 PM
Surr: 2,4,6-Tribromophenol	113	24.9-115		%REC	1	12/20/2011 10:55:37 PM
Surr: 2-Fluorobiphenyl	103	26.2-108		%REC	1	12/20/2011 10:55:37 PM
Surr: 2-Fluorophenol	97.3	17.7-98		%REC	1	12/20/2011 10:55:37 PM
Surr: 4-Terphenyl-d14	117	33.8-108	S	%REC	1	12/20/2011 10:55:37 PM
Surr: Nitrobenzene-d5	110	23-109	S	%REC	1	12/20/2011 10:55:37 PM
Surr: Phenol-d5	99.5	22.1-103		%REC	1	12/20/2011 10:55:37 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/3/2012 3:02:05 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/3/2012 3:02:05 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/3/2012 3:02:05 PM
Hexachloroethane	ND	3.0		mg/L	1	1/3/2012 3:02:05 PM
Nitrobenzene	ND	2.0		mg/L	1	1/3/2012 3:02:05 PM
Pentachlorophenol	ND	100		mg/L	1	1/3/2012 3:02:05 PM
Pyridine	ND	5.0		mg/L	1	1/3/2012 3:02:05 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/3/2012 3:02:05 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/3/2012 3:02:05 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1112721
Project: Tank 35 Clean Up
Lab ID: 1112721-03

Client Sample ID: T-35-3
Collection Date: 12/15/2011 11:10:00 AM
Date Received: 12/16/2011
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Cresols, Total	ND	200		mg/L	1	1/3/2012 3:02:05 PM
Surr: 2,4,6-Tribromophenol	66.7	18.2-136		%REC	1	1/3/2012 3:02:05 PM
Surr: 2-Fluorobiphenyl	62.2	40.5-108		%REC	1	1/3/2012 3:02:05 PM
Surr: 2-Fluorophenol	50.1	23-101		%REC	1	1/3/2012 3:02:05 PM
Surr: 4-Terphenyl-d14	66.8	40.9-112		%REC	1	1/3/2012 3:02:05 PM
Surr: Nitrobenzene-d5	68.8	41-115		%REC	1	1/3/2012 3:02:05 PM
Surr: Phenol-d5	37.2	23.4-73.6		%REC	1	1/3/2012 3:02:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Toluene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Ethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2,4-Trimethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,3,5-Trimethylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2-Dichloroethane (EDC)	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2-Dibromoethane (EDB)	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Naphthalene	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
1-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 1:55:34 PM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 1:55:34 PM
Acetone	ND	0.71		mg/Kg	1	12/19/2011 1:55:34 PM
Bromobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Bromodichloromethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Bromoform	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Bromomethane	ND	0.14		mg/Kg	1	12/19/2011 1:55:34 PM
2-Butanone	ND	0.47		mg/Kg	1	12/19/2011 1:55:34 PM
Carbon disulfide	ND	0.47		mg/Kg	1	12/19/2011 1:55:34 PM
Carbon tetrachloride	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Chlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Chloroethane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Chloroform	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Chloromethane	ND	0.14		mg/Kg	1	12/19/2011 1:55:34 PM
2-Chlorotoluene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
4-Chlorotoluene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
cis-1,2-DCE	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
cis-1,3-Dichloropropene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2-Dibromo-3-chloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Dibromochloromethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Dibromomethane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
1,2-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-3

Lab Order: 1112721

Collection Date: 12/15/2011 11:10:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
1,3-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,4-Dichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Dichlorodifluoromethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,1-Dichloroethane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
1,1-Dichloroethene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2-Dichloropropane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,3-Dichloropropane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
2,2-Dichloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
1,1-Dichloropropene	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Hexachlorobutadiene	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
2-Hexanone	ND	0.47		mg/Kg	1	12/19/2011 1:55:34 PM
Isopropylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
4-Isopropyltoluene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
4-Methyl-2-pentanone	ND	0.47		mg/Kg	1	12/19/2011 1:55:34 PM
Methylene chloride	ND	0.14		mg/Kg	1	12/19/2011 1:55:34 PM
n-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
n-Propylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
sec-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Styrene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
tert-Butylbenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,1,1,2-Tetrachloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,1,2,2-Tetrachloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Tetrachloroethene (PCE)	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
trans-1,2-DCE	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
trans-1,3-Dichloropropene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2,3-Trichlorobenzene	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
1,2,4-Trichlorobenzene	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,1,1-Trichloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,1,2-Trichloroethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Trichloroethene (TCE)	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Trichlorofluoromethane	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
1,2,3-Trichloropropane	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Vinyl chloride	ND	0.047		mg/Kg	1	12/19/2011 1:55:34 PM
Xylenes, Total	ND	0.095		mg/Kg	1	12/19/2011 1:55:34 PM
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	12/19/2011 1:55:34 PM
Surr: 4-Bromofluorobenzene	92.5	70-130		%REC	1	12/19/2011 1:55:34 PM
Surr: Dibromofluoromethane	95.5	63.1-128		%REC	1	12/19/2011 1:55:34 PM
Surr: Toluene-d8	103	70-130		%REC	1	12/19/2011 1:55:34 PM

VOLATILES BY 8260B/1311

Analyst: MMS

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1112721
 Project: Tank 35 Clean Up
 Lab ID: 1112721-03

Client Sample ID: T-35-3
 Collection Date: 12/15/2011 11:10:00 AM
 Date Received: 12/16/2011
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: MMS
Benzene	ND	0.50		mg/L	1	12/29/2011 5:51:09 PM
2-Butanone	ND	10		mg/L	1	12/29/2011 5:51:09 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/29/2011 5:51:09 PM
Chlorobenzene	ND	100		mg/L	1	12/29/2011 5:51:09 PM
Chloroform	ND	6.0		mg/L	1	12/29/2011 5:51:09 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/29/2011 5:51:09 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/29/2011 5:51:09 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/29/2011 5:51:09 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/29/2011 5:51:09 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/29/2011 5:51:09 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/29/2011 5:51:09 PM
Vinyl chloride	ND	0.20		mg/L	1	12/29/2011 5:51:09 PM
Surr: 1,2-Dichloroethane-d4	76.9	69.9-130		%REC	1	12/29/2011 5:51:09 PM
Surr: 4-Bromofluorobenzene	81.0	71.2-123		%REC	1	12/29/2011 5:51:09 PM
Surr: Dibromofluoromethane	82.4	73.9-134		%REC	1	12/29/2011 5:51:09 PM
Surr: Toluene-d8	89.7	81.9-122		%REC	1	12/29/2011 5:51:09 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup **Client Sample ID:** T-35-4
Lab Order: 1112721 **Collection Date:** 12/15/2011 11:37:00 AM
Project: Tank 35 Clean Up **Date Received:** 12/16/2011
Lab ID: 1112721-04 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	120	9.9		mg/Kg	1	12/19/2011 2:04:09 PM
Motor Oil Range Organics (MRO)	160	49		mg/Kg	1	12/19/2011 2:04:09 PM
Surr: DNOP	111	77.4-131		%REC	1	12/19/2011 2:04:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	24	4.8		mg/Kg	1	12/20/2011 5:16:03 AM
Surr: BFB	174	69.7-121	S	%REC	1	12/20/2011 5:16:03 AM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	12/19/2011 2:03:23 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	12/30/2011 1:38:03 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGE
Arsenic	ND	25		mg/Kg	10	12/20/2011 10:06:43 AM
Barium	290	1.0		mg/Kg	10	12/20/2011 10:06:43 AM
Cadmium	ND	1.0		mg/Kg	10	12/20/2011 10:06:43 AM
Chromium	12	3.0		mg/Kg	10	12/20/2011 10:06:43 AM
Lead	10	2.5		mg/Kg	10	12/20/2011 10:06:43 AM
Selenium	ND	25		mg/Kg	10	12/20/2011 10:06:43 AM
Silver	ND	2.5		mg/Kg	10	12/20/2011 10:06:43 AM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/3/2012 8:41:45 AM
Barium	ND	100		mg/L	5	1/3/2012 9:46:25 AM
Cadmium	ND	1.0		mg/L	1	1/3/2012 8:41:45 AM
Chromium	ND	5.0		mg/L	1	1/3/2012 8:41:45 AM
Lead	ND	5.0		mg/L	1	1/3/2012 8:41:45 AM
Selenium	ND	1.0		mg/L	1	1/3/2012 8:41:45 AM
Silver	ND	5.0		mg/L	1	1/3/2012 8:41:45 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Acenaphthylene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Aniline	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Azobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining-Southwest, Gallup

Client Sample ID: T-35-4

Lab Order: 1112721

Collection Date: 12/15/2011 11:37:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Benzoic acid	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Carbazole	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
4-Chloroaniline	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	12/20/2011 11:24:29 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Chrysene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	12/20/2011 11:24:29 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Dibenzofuran	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	12/20/2011 11:24:29 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
2,4-Dichlorophenol	ND	3.9		mg/Kg	1	12/20/2011 11:24:29 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	12/20/2011 11:24:29 PM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
2,4-Dinitrophenol	ND	3.9		mg/Kg	1	12/20/2011 11:24:29 PM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
Fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Fluorene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Hexachloroethane	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Page 20 of 30

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-4

Lab Order: 1112721

Collection Date: 12/15/2011 11:37:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Isophorone	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
2-Methylphenol	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Naphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
3-Nitroaniline	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
4-Nitroaniline	ND	3.9		mg/Kg	1	12/20/2011 11:24:29 PM
Nitrobenzene	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	12/20/2011 11:24:29 PM
Pentachlorophenol	ND	3.9		mg/Kg	1	12/20/2011 11:24:29 PM
Phenanthrene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Phenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Pyridine	ND	4.9		mg/Kg	1	12/20/2011 11:24:29 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:24:29 PM
Surr: 2,4,6-Tribromophenol	72.6	24.9-115		%REC	1	12/20/2011 11:24:29 PM
Surr: 2-Fluorobiphenyl	89.0	26.2-108		%REC	1	12/20/2011 11:24:29 PM
Surr: 2-Fluorophenol	70.5	17.7-98		%REC	1	12/20/2011 11:24:29 PM
Surr: 4-Terphenyl-d14	83.6	33.8-108		%REC	1	12/20/2011 11:24:29 PM
Surr: Nitrobenzene-d5	69.7	23-109		%REC	1	12/20/2011 11:24:29 PM
Surr: Phenol-d5	68.9	22.1-103		%REC	1	12/20/2011 11:24:29 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/3/2012 3:31:01 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/3/2012 3:31:01 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/3/2012 3:31:01 PM
Hexachloroethane	ND	3.0		mg/L	1	1/3/2012 3:31:01 PM
Nitrobenzene	ND	2.0		mg/L	1	1/3/2012 3:31:01 PM
Pentachlorophenol	ND	100		mg/L	1	1/3/2012 3:31:01 PM
Pyridine	ND	5.0		mg/L	1	1/3/2012 3:31:01 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/3/2012 3:31:01 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/3/2012 3:31:01 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-4

Lab Order: 1112721

Collection Date: 12/15/2011 11:37:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Cresols, Total	ND	200		mg/L	1	1/3/2012 3:31:01 PM
Surr: 2,4,6-Tribromophenol	76.4	18.2-136		%REC	1	1/3/2012 3:31:01 PM
Surr: 2-Fluorobiphenyl	65.0	40.5-108		%REC	1	1/3/2012 3:31:01 PM
Surr: 2-Fluorophenol	49.2	23-101		%REC	1	1/3/2012 3:31:01 PM
Surr: 4-Terphenyl-d14	78.7	40.9-112		%REC	1	1/3/2012 3:31:01 PM
Surr: Nitrobenzene-d5	77.6	41-115		%REC	1	1/3/2012 3:31:01 PM
Surr: Phenol-d5	38.3	23.4-73.6		%REC	1	1/3/2012 3:31:01 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Toluene	0.062	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2,4-Trimethylbenzene	0.39	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,3,5-Trimethylbenzene	0.44	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Naphthalene	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
1-Methylnaphthalene	0.25	0.19		mg/Kg	1	12/19/2011 2:23:38 PM
2-Methylnaphthalene	0.43	0.19		mg/Kg	1	12/19/2011 2:23:38 PM
Acetone	ND	0.72		mg/Kg	1	12/19/2011 2:23:38 PM
Bromobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Bromodichloromethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Bromoform	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Bromomethane	ND	0.14		mg/Kg	1	12/19/2011 2:23:38 PM
2-Butanone	ND	0.48		mg/Kg	1	12/19/2011 2:23:38 PM
Carbon disulfide	ND	0.48		mg/Kg	1	12/19/2011 2:23:38 PM
Carbon tetrachloride	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Chlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Chloroethane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Chloroform	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Chloromethane	ND	0.14		mg/Kg	1	12/19/2011 2:23:38 PM
2-Chlorotoluene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
4-Chlorotoluene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
cis-1,2-DCE	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2-Dibromo-3-chloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Dibromochloromethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Dibromomethane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Page 22 of 30

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining-Southwest, Gallup **Client Sample ID:** T-35-4
Lab Order: 1112721 **Collection Date:** 12/15/2011 11:37:00 AM
Project: Tank 35 Clean Up **Date Received:** 12/16/2011
Lab ID: 1112721-04 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,1-Dichloroethane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
1,1-Dichloroethene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2-Dichloropropane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,3-Dichloropropane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
2,2-Dichloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
1,1-Dichloropropene	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Hexachlorobutadiene	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
2-Hexanone	ND	0.48		mg/Kg	1	12/19/2011 2:23:38 PM
Isopropylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
4-Isopropyltoluene	0.056	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	12/19/2011 2:23:38 PM
Methylene chloride	ND	0.14		mg/Kg	1	12/19/2011 2:23:38 PM
n-Butylbenzene	0.072	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
n-Propylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
sec-Butylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Styrene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
tert-Butylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
trans-1,2-DCE	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2,3-Trichlorobenzene	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Trichlorofluoromethane	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
1,2,3-Trichloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Vinyl chloride	ND	0.048		mg/Kg	1	12/19/2011 2:23:38 PM
Xylenes, Total	1.0	0.097		mg/Kg	1	12/19/2011 2:23:38 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	12/19/2011 2:23:38 PM
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	1	12/19/2011 2:23:38 PM
Surr: Dibromofluoromethane	94.1	63.1-128		%REC	1	12/19/2011 2:23:38 PM
Surr: Toluene-d8	95.2	70-130		%REC	1	12/19/2011 2:23:38 PM

VOLATILES BY 8260B/1311

Analyst: MMS

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining-Southwest, Gallup

Client Sample ID: T-35-4

Lab Order: 1112721

Collection Date: 12/15/2011 11:37:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: MMS
Benzene	ND	0.50		mg/L	1	12/29/2011 6:18:54 PM
2-Butanone	ND	10		mg/L	1	12/29/2011 6:18:54 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/29/2011 6:18:54 PM
Chlorobenzene	ND	100		mg/L	1	12/29/2011 6:18:54 PM
Chloroform	ND	6.0		mg/L	1	12/29/2011 6:18:54 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/29/2011 6:18:54 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/29/2011 6:18:54 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/29/2011 6:18:54 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/29/2011 6:18:54 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/29/2011 6:18:54 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/29/2011 6:18:54 PM
Vinyl chloride	ND	0.20		mg/L	1	12/29/2011 6:18:54 PM
Surr: 1,2-Dichloroethane-d4	76.4	69.9-130		%REC	1	12/29/2011 6:18:54 PM
Surr: 4-Bromofluorobenzene	81.4	71.2-123		%REC	1	12/29/2011 6:18:54 PM
Surr: Dibromofluoromethane	80.6	73.9-134		%REC	1	12/29/2011 6:18:54 PM
Surr: Toluene-d8	93.8	81.9-122		%REC	1	12/29/2011 6:18:54 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup Client Sample ID: T-35-5
 Lab Order: 1112721 Collection Date: 12/15/2011 11:30:00 AM
 Project: Tank 35 Clean Up Date Received: 12/16/2011
 Lab ID: 1112721-05 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	160	10		mg/Kg	1	12/19/2011 2:33:50 PM
Motor Oil Range Organics (MRO)	230	51		mg/Kg	1	12/19/2011 2:33:50 PM
Surr: DNOP	114	77.4-131		%REC	1	12/19/2011 2:33:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/20/2011 5:44:48 AM
Surr: BFB	108	69.7-121		%REC	1	12/20/2011 5:44:48 AM
EPA METHOD 7471: MERCURY						Analyst: JLF
Mercury	ND	0.033		mg/Kg	1	12/19/2011 2:05:08 PM
MERCURY, TCLP						Analyst: JLF
Mercury	ND	0.020		mg/L	1	12/30/2011 1:43:18 PM
EPA METHOD 6010B: SOIL METALS						Analyst: RAGS
Arsenic	ND	25		mg/Kg	10	12/20/2011 10:08:35 AM
Barium	280	1.0		mg/Kg	10	12/20/2011 10:08:35 AM
Cadmium	ND	1.0		mg/Kg	10	12/20/2011 10:08:35 AM
Chromium	9.2	3.0		mg/Kg	10	12/20/2011 10:08:35 AM
Lead	9.4	2.5		mg/Kg	10	12/20/2011 10:08:35 AM
Selenium	ND	25		mg/Kg	10	12/20/2011 10:08:35 AM
Silver	ND	2.5		mg/Kg	10	12/20/2011 10:08:35 AM
EPA METHOD 6010B: TCLP METALS						Analyst: ELS
Arsenic	ND	5.0		mg/L	1	1/3/2012 8:43:52 AM
Barium	ND	100		mg/L	5	1/3/2012 9:48:26 AM
Cadmium	ND	1.0		mg/L	1	1/3/2012 8:43:52 AM
Chromium	ND	5.0		mg/L	1	1/3/2012 8:43:52 AM
Lead	ND	5.0		mg/L	1	1/3/2012 8:43:52 AM
Selenium	ND	1.0		mg/L	1	1/3/2012 8:43:52 AM
Silver	ND	5.0		mg/L	1	1/3/2012 8:43:52 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Acenaphthylene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Aniline	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Azobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup Client Sample ID: T-35-5
 Lab Order: 1112721 Collection Date: 12/15/2011 11:30:00 AM
 Project: Tank 35 Clean Up Date Received: 12/16/2011
 Lab ID: 1112721-05 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benzoic acid	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Carbazole	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	12/20/2011 11:53:20 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Chrysene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	12/20/2011 11:53:20 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Dibenzofuran	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	12/20/2011 11:53:20 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	12/20/2011 11:53:20 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
Fluoranthene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Fluorene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Hexachloroethane	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit
 B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Lab Order: 1112721

Collection Date: 12/15/2011 11:30:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Isophorone	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
2-Methylphenol	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Naphthalene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
3-Nitroaniline	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	12/20/2011 11:53:20 PM
Nitrobenzene	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	12/20/2011 11:53:20 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	12/20/2011 11:53:20 PM
Phenanthrene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Phenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Pyrene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Pyridine	ND	5.0		mg/Kg	1	12/20/2011 11:53:20 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	12/20/2011 11:53:20 PM
Surr: 2,4,6-Tribromophenol	74.5	24.9-115		%REC	1	12/20/2011 11:53:20 PM
Surr: 2-Fluorobiphenyl	92.4	26.2-108		%REC	1	12/20/2011 11:53:20 PM
Surr: 2-Fluorophenol	80.9	17.7-98		%REC	1	12/20/2011 11:53:20 PM
Surr: 4-Terphenyl-d14	90.8	33.8-108		%REC	1	12/20/2011 11:53:20 PM
Surr: Nitrobenzene-d5	77.6	23-109		%REC	1	12/20/2011 11:53:20 PM
Surr: Phenol-d5	74.9	22.1-103		%REC	1	12/20/2011 11:53:20 PM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	1/3/2012 4:00:05 PM
Hexachlorobenzene	ND	0.13		mg/L	1	1/3/2012 4:00:05 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	1/3/2012 4:00:05 PM
Hexachloroethane	ND	3.0		mg/L	1	1/3/2012 4:00:05 PM
Nitrobenzene	ND	2.0		mg/L	1	1/3/2012 4:00:05 PM
Pentachlorophenol	ND	100		mg/L	1	1/3/2012 4:00:05 PM
Pyridine	ND	5.0		mg/L	1	1/3/2012 4:00:05 PM
2,4,5-Trichlorophenol	ND	400		mg/L	1	1/3/2012 4:00:05 PM
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	1/3/2012 4:00:05 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining-Southwest, Gallup

Client Sample ID: T-35-5

Lab Order: 1112721

Collection Date: 12/15/2011 11:30:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C TCLP						Analyst: JDC
Cresols, Total	ND	200		mg/L	1	1/3/2012 4:00:05 PM
Surr: 2,4,6-Tribromophenol	78.0	18.2-136		%REC	1	1/3/2012 4:00:05 PM
Surr: 2-Fluorobiphenyl	74.5	40.5-108		%REC	1	1/3/2012 4:00:05 PM
Surr: 2-Fluorophenol	57.2	23-101		%REC	1	1/3/2012 4:00:05 PM
Surr: 4-Terphenyl-d14	78.9	40.9-112		%REC	1	1/3/2012 4:00:05 PM
Surr: Nitrobenzene-d5	87.1	41-115		%REC	1	1/3/2012 4:00:05 PM
Surr: Phenol-d5	41.7	23.4-73.6		%REC	1	1/3/2012 4:00:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Toluene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Ethylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Methyl tert-butyl ether (MTBE)	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2,4-Trimethylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,3,5-Trimethylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2-Dichloroethane (EDC)	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2-Dibromoethane (EDB)	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Naphthalene	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
1-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 2:51:39 PM
2-Methylnaphthalene	ND	0.19		mg/Kg	1	12/19/2011 2:51:39 PM
Acetone	ND	0.72		mg/Kg	1	12/19/2011 2:51:39 PM
Bromobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Bromodichloromethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Bromoform	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Bromomethane	ND	0.14		mg/Kg	1	12/19/2011 2:51:39 PM
2-Butanone	ND	0.48		mg/Kg	1	12/19/2011 2:51:39 PM
Carbon disulfide	ND	0.48		mg/Kg	1	12/19/2011 2:51:39 PM
Carbon tetrachloride	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Chlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Chloroethane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Chloroform	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Chloromethane	ND	0.14		mg/Kg	1	12/19/2011 2:51:39 PM
2-Chlorotoluene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
4-Chlorotoluene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
cis-1,2-DCE	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
cis-1,3-Dichloropropene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2-Dibromo-3-chloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Dibromochloromethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Dibromomethane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
1,2-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Lab Order: 1112721

Collection Date: 12/15/2011 11:30:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
1,3-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,4-Dichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Dichlorodifluoromethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,1-Dichloroethane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
1,1-Dichloroethene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2-Dichloropropane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,3-Dichloropropane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
2,2-Dichloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
1,1-Dichloropropene	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Hexachlorobutadiene	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
2-Hexanone	ND	0.48		mg/Kg	1	12/19/2011 2:51:39 PM
Isopropylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
4-Isopropyltoluene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
4-Methyl-2-pentanone	ND	0.48		mg/Kg	1	12/19/2011 2:51:39 PM
Methylene chloride	ND	0.14		mg/Kg	1	12/19/2011 2:51:39 PM
n-Butylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
n-Propylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
sec-Butylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Styrene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
tert-Butylbenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,1,1,2-Tetrachloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,1,2,2-Tetrachloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Tetrachloroethene (PCE)	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
trans-1,2-DCE	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
trans-1,3-Dichloropropene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2,3-Trichlorobenzene	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
1,2,4-Trichlorobenzene	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,1,1-Trichloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,1,2-Trichloroethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Trichloroethene (TCE)	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Trichlorofluoromethane	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
1,2,3-Trichloropropane	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Vinyl chloride	ND	0.048		mg/Kg	1	12/19/2011 2:51:39 PM
Xylenes, Total	ND	0.097		mg/Kg	1	12/19/2011 2:51:39 PM
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	12/19/2011 2:51:39 PM
Surr: 4-Bromofluorobenzene	84.7	70-130		%REC	1	12/19/2011 2:51:39 PM
Surr: Dibromofluoromethane	95.8	63.1-128		%REC	1	12/19/2011 2:51:39 PM
Surr: Toluene-d8	98.0	70-130		%REC	1	12/19/2011 2:51:39 PM

VOLATILES BY 8260B/1311

Analyst: MMS

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Page 29 of 30

Hall Environmental Analysis Laboratory, Inc.

Date: 06-Jan-12

Analytical Report

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-35-5

Lab Order: 1112721

Collection Date: 12/15/2011 11:30:00 AM

Project: Tank 35 Clean Up

Date Received: 12/16/2011

Lab ID: 1112721-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: MMS
Benzene	ND	0.50		mg/L	1	12/29/2011 6:46:39 PM
2-Butanone	ND	10		mg/L	1	12/29/2011 6:46:39 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	12/29/2011 6:46:39 PM
Chlorobenzene	ND	100		mg/L	1	12/29/2011 6:46:39 PM
Chloroform	ND	6.0		mg/L	1	12/29/2011 6:46:39 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	12/29/2011 6:46:39 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	12/29/2011 6:46:39 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	12/29/2011 6:46:39 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	12/29/2011 6:46:39 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	12/29/2011 6:46:39 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	12/29/2011 6:46:39 PM
Vinyl chloride	ND	0.20		mg/L	1	12/29/2011 6:46:39 PM
Surr: 1,2-Dichloroethane-d4	77.3	69.9-130		%REC	1	12/29/2011 6:46:39 PM
Surr: 4-Bromofluorobenzene	83.7	71.2-123		%REC	1	12/29/2011 6:46:39 PM
Surr: Dibromofluoromethane	87.5	73.9-134		%REC	1	12/29/2011 6:46:39 PM
Surr: Toluene-d8	98.8	81.9-122		%REC	1	12/29/2011 6:46:39 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 111229020
Project Name: 1112721

Analytical Results Report

Sample Number	111229020-001	Sampling Date	12/15/2011	Date/Time Received	12/29/2011 11:43 AM		
Client Sample ID	1112721-01A / T-35-1	Sampling Time	10:45 AM				
Matrix	Soil	Sample Location					
Comments							
Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	12/30/2011	CRW	SW846 CH7	
Ignitability	Negative			1/3/2012	JWC	EPA 1030	
pH	8.27	ph Units		12/30/2011	KFG	EPA 9045	
Reactive sulfide	203	mg/kg	30	1/5/2012	JTT	SW846 CH7	
%moisture	16.4	Percent		12/30/2011	CRW	%moisture	

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

Batch #: 111229020
Project Name: 1112721

Analytical Results Report

Sample Number	111229020-002	Sampling Date	12/15/2011	Date/Time Received	12/29/2011 11:43 AM
Client Sample ID	1112721-02A / T-35-2	Sampling Time	10:55 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	12/30/2011	CRW	SW846 CH7	
Ignitability	Negative			1/3/2012	JWC	EPA 1030	
pH	9.01	ph Units		12/30/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	30	1/5/2012	JTT	SW846 CH7	
%moisture	21.2	Percent		12/30/2011	CRW	%moisture	

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

Batch #: 111229020
Project Name: 1112721

Analytical Results Report

Sample Number	111229020-003	Sampling Date	12/15/2011	Date/Time Received	12/29/2011 11:43 AM
Client Sample ID	1112721-03A / T-35-3	Sampling Time	11:10 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	12/30/2011	CRW	SW846 CH7	
Ignitability	Negative			1/3/2012	JWC	EPA 1030	
pH	9.00	ph Units		12/30/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	30	1/5/2012	JTT	SW846 CH7	
%moisture	11.1	Percent		12/30/2011	CRW	%moisture	

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

Batch #: 111229020
Project Name: 1112721

Analytical Results Report

Sample Number	111229020-004	Sampling Date	12/15/2011	Date/Time Received	12/29/2011 11:43 AM
Client Sample ID	1112721-04A / T-35-4	Sampling Time	11:37 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	12/30/2011	CRW	SW846 CH7	
Ignitability	Negative			1/3/2012	JWC	EPA 1030	
pH	8.54	ph Units		12/30/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	30	1/5/2012	JTT	SW846 CH7	
%moisture	6.2	Percent		12/30/2011	CRW	%moisture	

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

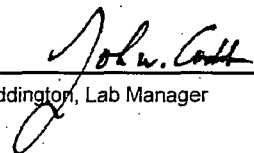
Batch #: 111229020
Project Name: 1112721

Analytical Results Report

Sample Number	111229020-005	Sampling Date	12/15/2011	Date/Time Received	12/29/2011 11:43 AM
Client Sample ID	1112721-05A / T-35-5	Sampling Time	11:30 AM		
Matrix	Soil	Sample Location			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide (reactive)	ND	mg/Kg	10	12/30/2011	CRW	SW846 CH7	
Ignitability	Negative			1/3/2012	JWC	EPA 1030	
pH	8.86	ph Units		12/30/2011	KFG	EPA 9045	
Reactive sulfide	ND	mg/kg	30	1/5/2012	JTT	SW846 CH7	
%moisture	12.4	Percent		12/30/2011	CRW	%moisture	

Authorized Signature


John Coddington, Lab Manager

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

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

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C585; MT:Cert0095

Thursday, January 05, 2012

Page 5 of 5

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Tank 35 Clean Up

Work Order: 1112721

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

Sample ID: MB-29798

MBLK

Batch ID: 29798 Analysis Date: 12/18/2011 2:59:58 PM

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

Sample ID: LCS-29798

LCS

Batch ID: 29798 Analysis Date: 12/18/2011 3:29:56 PM

Diesel Range Organics (DRO) 51.15 mg/Kg 10 50 0 102 62.7 139

Method: EPA Method 8015B: Gasoline Range

Sample ID: MB-29797

MBLK

Batch ID: 29797 Analysis Date: 12/19/2011 12:23:44 PM

Gasoline Range Organics (GRO) ND mg/Kg 5.0

Sample ID: LCS-29797

LCS

Batch ID: 29797 Analysis Date: 12/19/2011 11:54:58 AM

Gasoline Range Organics (GRO) 25.04 mg/Kg 5.0 25 0 100 86.4 132

Qualifiers:

E Estimated value
J Analyte detected below quantitation limits
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
NC Non-Chlorinated
R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-29797

MBLK

Batch ID: 29797 Analysis Date: 12/19/2011 11:35:58 AM

Benzene	ND	mg/Kg	0.050
Toluene	ND	mg/Kg	0.050
Ethylbenzene	ND	mg/Kg	0.050
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050
Naphthalene	ND	mg/Kg	0.10
1-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylnaphthalene	ND	mg/Kg	0.20
Acetone	ND	mg/Kg	0.75
Bromobenzene	ND	mg/Kg	0.050
Bromodichloromethane	ND	mg/Kg	0.050
Bromoform	ND	mg/Kg	0.050
Bromomethane	ND	mg/Kg	0.15
2-Butanone	ND	mg/Kg	0.50
Carbon disulfide	ND	mg/Kg	0.50
Carbon tetrachloride	ND	mg/Kg	0.10
Chlorobenzene	ND	mg/Kg	0.050
Chloroethane	ND	mg/Kg	0.10
Chloroform	ND	mg/Kg	0.050
Chloromethane	ND	mg/Kg	0.15
2-Chlorotoluene	ND	mg/Kg	0.050
4-Chlorotoluene	ND	mg/Kg	0.050
cis-1,2-DCE	ND	mg/Kg	0.050
cis-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10
Dibromochloromethane	ND	mg/Kg	0.050
Dibromomethane	ND	mg/Kg	0.10
1,2-Dichlorobenzene	ND	mg/Kg	0.050
1,3-Dichlorobenzene	ND	mg/Kg	0.050
1,4-Dichlorobenzene	ND	mg/Kg	0.050
Dichlorodifluoromethane	ND	mg/Kg	0.050
1,1-Dichloroethane	ND	mg/Kg	0.10
1,1-Dichloroethene	ND	mg/Kg	0.050
1,2-Dichloropropane	ND	mg/Kg	0.050
1,3-Dichloropropane	ND	mg/Kg	0.050
2,2-Dichloropropane	ND	mg/Kg	0.10
1,1-Dichloropropene	ND	mg/Kg	0.10
Hexachlorobutadiene	ND	mg/Kg	0.10
2-Hexanone	ND	mg/Kg	0.50
Isopropylbenzene	ND	mg/Kg	0.050
4-Isopropyltoluene	ND	mg/Kg	0.050

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-29797

MBLK

Batch ID: 29797 Analysis Date: 12/19/2011 11:35:58 AM

4-Methyl-2-pentanone	ND	mg/Kg	0.50
Methylene chloride	ND	mg/Kg	0.15
n-Butylbenzene	ND	mg/Kg	0.050
n-Propylbenzene	ND	mg/Kg	0.050
sec-Butylbenzene	ND	mg/Kg	0.050
Styrene	ND	mg/Kg	0.050
tert-Butylbenzene	ND	mg/Kg	0.050
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050
Tetrachloroethene (PCE)	ND	mg/Kg	0.050
trans-1,2-DCE	ND	mg/Kg	0.050
trans-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050
1,1,1-Trichloroethane	ND	mg/Kg	0.050
1,1,2-Trichloroethane	ND	mg/Kg	0.050
Trichloroethene (TCE)	ND	mg/Kg	0.050
Trichlorofluoromethane	ND	mg/Kg	0.050
1,2,3-Trichloropropane	ND	mg/Kg	0.10
Vinyl chloride	ND	mg/Kg	0.050
Xylenes, Total	ND	mg/Kg	0.10

Sample ID: lcs-29797

LCS

Batch ID: 29797 Analysis Date: 12/19/2011 12:03:53 PM

Benzene	1.092	mg/Kg	0.050	1	0	109	70.7	123
Toluene	1.002	mg/Kg	0.050	1	0	100	80	120
Chlorobenzene	1.089	mg/Kg	0.050	1	0	109	70	130
1,1-Dichloroethene	1.100	mg/Kg	0.050	1	0	110	63.1	148
Trichloroethene (TCE)	1.013	mg/Kg	0.050	1	0	101	63.2	114

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: Volatiles by 8260B/1311											
Sample ID: 1112721-01AMSD		MSD				Batch ID: 29900		Analysis Date: 12/29/2011 4:55:52 PM			
Benzene	0.4054	mg/L	0.10	0.4	0	101	51.1	171	2.69	0	
Chlorobenzene	0.4119	mg/L	0.10	0.4	0	103	36.1	191	2.73	0	
1,1-Dichloroethene	0.3894	mg/L	0.10	0.4	0	97.3	49.1	162	5.46	0	
Trichloroethene (TCE)	0.3582	mg/L	0.10	0.4	0	89.6	41.2	166	3.01	0	
Sample ID: mb-29900		MBLK				Batch ID: 29900		Analysis Date: 12/29/2011 3:04:18 PM			
Benzene	ND	mg/L	0.50								
2-Butanone	ND	mg/L	10								
Carbon Tetrachloride	ND	mg/L	0.50								
Chlorobenzene	ND	mg/L	100								
Chloroform	ND	mg/L	6.0								
1,4-Dichlorobenzene	ND	mg/L	7.5								
1,2-Dichloroethane (EDC)	ND	mg/L	0.50								
1,1-Dichloroethene	ND	mg/L	0.70								
Hexachlorobutadiene	ND	mg/L	0.50								
Tetrachloroethene (PCE)	ND	mg/L	0.70								
Trichloroethene (TCE)	ND	mg/L	0.50								
Vinyl chloride	ND	mg/L	0.20								
Sample ID: lcs-29900		LCS				Batch ID: 29900		Analysis Date: 12/29/2011 3:32:18 PM			
Benzene	0.4022	mg/L	0.10	0.4	0	101	51.1	171			
Chlorobenzene	0.4188	mg/L	0.10	0.4	0	105	36.1	191			
1,1-Dichloroethene	0.3931	mg/L	0.10	0.4	0	98.3	49.1	162			
Trichloroethene (TCE)	0.3806	mg/L	0.10	0.4	0	95.2	41.2	166			
Sample ID: 1112721-01AMS		MS				Batch ID: 29900		Analysis Date: 12/29/2011 4:27:56 PM			
Benzene	0.4164	mg/L	0.10	0.4	0	104	51.1	171			
Chlorobenzene	0.4233	mg/L	0.10	0.4	0	106	36.1	191			
1,1-Dichloroethene	0.4112	mg/L	0.10	0.4	0	103	49.1	162			
Trichloroethene (TCE)	0.3692	mg/L	0.10	0.4	0	92.3	41.2	166			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-29816

MBLK

Batch ID: 29816 Analysis Date: 12/20/2011 8:09:06 PM

Acenaphthene	ND	mg/Kg	0.20
Acenaphthylene	ND	mg/Kg	0.20
Aniline	ND	mg/Kg	0.20
Anthracene	ND	mg/Kg	0.20
Azobenzene	ND	mg/Kg	0.20
Benz(a)anthracene	ND	mg/Kg	0.20
Benzo(a)pyrene	ND	mg/Kg	0.20
Benzo(b)fluoranthene	ND	mg/Kg	0.20
Benzo(g,h,i)perylene	ND	mg/Kg	0.20
Benzo(k)fluoranthene	ND	mg/Kg	0.20
Benzoic acid	ND	mg/Kg	0.50
Benzyl alcohol	ND	mg/Kg	0.20
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20
Butyl benzyl phthalate	ND	mg/Kg	0.20
Carbazole	ND	mg/Kg	0.20
4-Chloro-3-methylphenol	ND	mg/Kg	0.50
4-Chloroaniline	ND	mg/Kg	0.50
2-Chloronaphthalene	ND	mg/Kg	0.25
2-Chlorophenol	ND	mg/Kg	0.20
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20
Chrysene	ND	mg/Kg	0.20
Di-n-butyl phthalate	ND	mg/Kg	0.50
Di-n-octyl phthalate	ND	mg/Kg	0.25
Dibenz(a,h)anthracene	ND	mg/Kg	0.20
Dibenzofuran	ND	mg/Kg	0.20
1,2-Dichlorobenzene	ND	mg/Kg	0.20
1,3-Dichlorobenzene	ND	mg/Kg	0.20
1,4-Dichlorobenzene	ND	mg/Kg	0.20
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25
Diethyl phthalate	ND	mg/Kg	0.20
Dimethyl phthalate	ND	mg/Kg	0.20
2,4-Dichlorophenol	ND	mg/Kg	0.40
2,4-Dimethylphenol	ND	mg/Kg	0.30
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50
2,4-Dinitrophenol	ND	mg/Kg	0.40
2,4-Dinitrotoluene	ND	mg/Kg	0.50
2,6-Dinitrotoluene	ND	mg/Kg	0.50
Fluoranthene	ND	mg/Kg	0.20
Fluorene	ND	mg/Kg	0.20
Hexachlorobenzene	ND	mg/Kg	0.20

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-29816

MBLK

Batch ID: 29816 Analysis Date: 12/20/2011 8:09:06 PM

Hexachlorobutadiene	ND	mg/Kg	0.20
Hexachlorocyclopentadiene	ND	mg/Kg	0.20
Hexachloroethane	ND	mg/Kg	0.20
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.20
Isophorone	ND	mg/Kg	0.50
2-Methylnaphthalene	ND	mg/Kg	0.20
1-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylphenol	ND	mg/Kg	0.50
3+4-Methylphenol	ND	mg/Kg	0.20
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20
N-Nitrosodiphenylamine	ND	mg/Kg	0.20
Naphthalene	ND	mg/Kg	0.20
2-Nitroaniline	ND	mg/Kg	0.20
3-Nitroaniline	ND	mg/Kg	0.20
4-Nitroaniline	ND	mg/Kg	0.40
Nitrobenzene	ND	mg/Kg	0.50
2-Nitrophenol	ND	mg/Kg	0.20
4-Nitrophenol	ND	mg/Kg	0.25
Pentachlorophenol	ND	mg/Kg	0.40
Phenanthrene	ND	mg/Kg	0.20
Phenol	ND	mg/Kg	0.20
Pyrene	ND	mg/Kg	0.20
Pyridine	ND	mg/Kg	0.50
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20
2,4,5-Trichlorophenol	ND	mg/Kg	0.20
2,4,6-Trichlorophenol	ND	mg/Kg	0.20

Sample ID: lcs-29816

LCS

Batch ID: 29816 Analysis Date: 12/20/2011 8:38:08 PM

Acenaphthene	1.216	mg/Kg	0.20	1.67	0	72.8	49.7	98.1
4-Chloro-3-methylphenol	2.332	mg/Kg	0.50	3.33	0	70.0	43.8	89.1
2-Chlorophenol	2.338	mg/Kg	0.20	3.33	0	70.2	41.1	96.9
1,4-Dichlorobenzene	1.212	mg/Kg	0.20	1.67	0	72.6	41	97.4
2,4-Dinitrotoluene	1.345	mg/Kg	0.50	1.67	0	80.6	44.4	104
N-Nitrosodi-n-propylamine	0.9913	mg/Kg	0.20	1.67	0	59.4	39.1	86.9
4-Nitrophenol	2.253	mg/Kg	0.25	3.33	0	67.7	44.2	107
Pentachlorophenol	1.685	mg/Kg	0.40	3.33	0	50.6	36.2	80
Phenol	2.445	mg/Kg	0.20	3.33	0	73.4	42.7	92.7
Pyrene	1.114	mg/Kg	0.20	1.67	0	66.7	34.7	98.8
1,2,4-Trichlorobenzene	1.068	mg/Kg	0.20	1.67	0	64.0	37.8	98.3

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits.	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C TCLP

Sample ID: 1112721-01Amsd

MSD

Batch ID: 29917

Analysis Date: 1/3/2012 2:04:13 PM

2,4-Dinitrotoluene	0.09830	mg/L	0.010	0.1	0	98.3	9.57	115	14.0	20
Hexachlorobenzene	0.06686	mg/L	0.010	0.1	0	66.9	15.9	96.9	2.51	20
Hexachlorobutadiene	0.07474	mg/L	0.010	0.1	0	74.7	21.1	97.9	1.59	20
Hexachloroethane	0.07794	mg/L	0.010	0.1	0	77.9	18.1	105	5.48	20
Nitrobenzene	0.08286	mg/L	0.010	0.1	0	82.9	23.3	123	6.97	20
Pentachlorophenol	0.05194	mg/L	0.010	0.1	0	51.9	10	150	1.38	20
Pyridine	0.05118	mg/L	0.010	0.1	0	51.2	9.15	86.2	6.83	20
2,4,5-Trichlorophenol	0.07234	mg/L	0.010	0.1	0	72.3	8.46	119	4.78	20
2,4,6-Trichlorophenol	0.06908	mg/L	0.010	0.1	0	69.1	4.44	115	3.54	20
Cresols, Total	0.2429	mg/L	0.010	0.3	0	81.0	8.35	114	11.0	20

Sample ID: mb-29917

MBLK

Batch ID: 29917

Analysis Date: 1/3/2012 12:07:57 PM

2,4-Dinitrotoluene	ND	mg/L	0.13							
Hexachlorobenzene	ND	mg/L	0.13							
Hexachlorobutadiene	ND	mg/L	0.50							
Hexachloroethane	ND	mg/L	3.0							
Nitrobenzene	ND	mg/L	2.0							
Pentachlorophenol	ND	mg/L	100							
Pyridine	ND	mg/L	5.0							
2,4,5-Trichlorophenol	ND	mg/L	400							
2,4,6-Trichlorophenol	ND	mg/L	2.0							
Cresols, Total	ND	mg/L	200							

Sample ID: lcs-29917

LCS

Batch ID: 29917

Analysis Date: 1/3/2012 12:37:08 PM

2,4-Dinitrotoluene	0.09236	mg/L	0.010	0.1	0	92.4	18.2	108		
Hexachlorobenzene	0.06614	mg/L	0.010	0.1	0	66.1	34.2	74.5		
Hexachlorobutadiene	0.06722	mg/L	0.010	0.1	0	67.2	31.3	88.5		
Hexachloroethane	0.06796	mg/L	0.010	0.1	0	68.0	31.6	94.6		
Nitrobenzene	0.07686	mg/L	0.010	0.1	0	76.9	39.7	107		
Pentachlorophenol	0.04042	mg/L	0.010	0.1	0	40.4	15.9	86.7		
Pyridine	0.05476	mg/L	0.010	0.1	0	54.8	14.7	73.6		
2,4,5-Trichlorophenol	0.06834	mg/L	0.010	0.1	0	68.3	18.9	102		
2,4,6-Trichlorophenol	0.06020	mg/L	0.010	0.1	0	60.2	12.3	103		
Cresols, Total	0.2326	mg/L	0.010	0.3	0	77.5	25.9	99.2		

Sample ID: 1112721-01Ams

MS

Batch ID: 29917

Analysis Date: 1/3/2012 1:35:09 PM

2,4-Dinitrotoluene	0.08542	mg/L	0.010	0.1	0	85.4	9.57	115		
Hexachlorobenzene	0.06856	mg/L	0.010	0.1	0	68.6	15.9	96.9		
Hexachlorobutadiene	0.07356	mg/L	0.010	0.1	0	73.6	21.1	97.9		
Hexachloroethane	0.07378	mg/L	0.010	0.1	0	73.8	18.1	105		
Nitrobenzene	0.07728	mg/L	0.010	0.1	0	77.3	23.3	123		
Pentachlorophenol	0.05266	mg/L	0.010	0.1	0	52.7	10	150		
Pyridine	0.04780	mg/L	0.010	0.1	0	47.8	9.15	86.2		
2,4,5-Trichlorophenol	0.06896	mg/L	0.010	0.1	0	69.0	8.46	119		
2,4,6-Trichlorophenol	0.06668	mg/L	0.010	0.1	0	66.7	4.44	115		
Cresols, Total	0.2176	mg/L	0.010	0.3	0	72.5	8.35	114		

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: Tank 35 Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7471: Mercury											
Sample ID: 1112721-01AMSD		MSD									
Mercury	0.1911	mg/Kg	0.033	0.166	0.0182	104	75	125	0.587	20	
Sample ID: MB-29809		MBLK									
Mercury	ND	mg/Kg	0.033								
Sample ID: LCS-29809		LCS									
Mercury	0.1667	mg/Kg	0.033	0.167	0	100	80	120			
Sample ID: 1112721-01AMS		MS									
Mercury	0.1900	mg/Kg	0.033	0.165	0.0182	104	75	125			
Method: MERCURY, TCLP											
Sample ID: 1112721-04AMSD		MSD									
Mercury	ND	mg/L	0.020	0.005	0	101	75	125	0	20	
Sample ID: MB-29918		MBLK									
Mercury	ND	mg/L	0.020								
Sample ID: LCS-29918		LCS									
Mercury	ND	mg/L	0.020	0.005	0	106	80	120			
Sample ID: 1112721-04AMS		MS									
Mercury	ND	mg/L	0.020	0.005	0	97.1	75	125			
Method: EPA Method 6010B: Soil Metals											
Sample ID: MB-29800		MBLK									
Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								
Sample ID: LCS-29800		LCS									
Arsenic	27.57	mg/Kg	2.5	25	0	110	80	120			
Barium	25.67	mg/Kg	0.10	25	0	103	80	120			
Cadmium	26.20	mg/Kg	0.10	25	0	105	80	120			
Chromium	25.93	mg/Kg	0.30	25	0.1172	103	80	120			
Lead	26.15	mg/Kg	0.25	25	0	105	80	120			
Selenium	28.34	mg/Kg	2.5	25	0	113	80	120			
Silver	5.113	mg/Kg	0.25	5	0	102	80	120			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: Tank 35-Clean Up

Work Order: 1112721

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: TCLP Metals											
Sample ID: 1112721-05AMSD		MSD				Batch ID: 29915	Analysis Date: 1/3/2012 8:48:23 AM				
Arsenic	ND	mg/L	5.0	0.5	0	98.5	75	125	0	20	
Cadmium	ND	mg/L	1.0	0.5	0	92.3	75	125	0	20	
Chromium	ND	mg/L	5.0	0.5	0	84.6	75	125	0	20	
Lead	ND	mg/L	5.0	0.5	0.0021	84.4	75	125	0	20	
Selenium	ND	mg/L	1.0	0.5	0	89.1	75	125	0	20	
Silver	ND	mg/L	5.0	0.1	0	91.6	75	125	0	20	
Sample ID: 1112721-05AMSD		MSD				Batch ID: 29915	Analysis Date: 1/3/2012 9:52:30 AM				
Barium	ND	mg/L	100	0.5	1.611	93.6	75	125	0	20	
Sample ID: MB-29915		MBLK				Batch ID: 29915	Analysis Date: 1/3/2012 7:57:28 AM				
Arsenic	ND	mg/L	5.0								
Barium	ND	mg/L	100								
Cadmium	ND	mg/L	1.0								
Chromium	ND	mg/L	5.0								
Lead	ND	mg/L	5.0								
Selenium	ND	mg/L	1.0								
Silver	ND	mg/L	5.0								
Sample ID: LCS-29915		LCS				Batch ID: 29915	Analysis Date: 1/3/2012 8:01:58 AM				
Arsenic	ND	mg/L	5.0	0.5	0	113	80	120			
Barium	ND	mg/L	100	0.5	0	100	80	120			
Cadmium	ND	mg/L	1.0	0.5	0	106	80	120			
Chromium	ND	mg/L	5.0	0.5	0	101	80	120			
Lead	ND	mg/L	5.0	0.5	0	100	80	120			
Selenium	ND	mg/L	1.0	0.5	0	108	80	120			
Silver	ND	mg/L	5.0	0.1	0	155	80	120			S
Sample ID: 1112721-05AMS		MS				Batch ID: 29915	Analysis Date: 1/3/2012 8:46:04 AM				
Arsenic	ND	mg/L	5.0	0.5	0	123	75	125			
Cadmium	ND	mg/L	1.0	0.5	0	114	75	125			
Chromium	ND	mg/L	5.0	0.5	0	104	75	125			
Lead	ND	mg/L	5.0	0.5	0.0021	104	75	125			
Selenium	ND	mg/L	1.0	0.5	0	109	75	125			
Silver	ND	mg/L	5.0	0.1	0	115	75	125			
Sample ID: 1112721-05AMS		MS				Batch ID: 29915	Analysis Date: 1/3/2012 9:50:28 AM				
Barium	ND	mg/L	100	0.5	1.611	93.4	75	125			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Chain-of-Custody Record

Client: Western Refining Turn-Around Time: 12/14

☐ Standard ☒ Rush 3 day

Project Name: TANK 35 CLEAN UP

Project #: NA

Project Manager: Beck Larsen

Sampler: Sean Ukle

On Ice: ☒ Yes ☐ No

Sample Temperature: 10

Container Type and #

Preservative Type

HEAL No

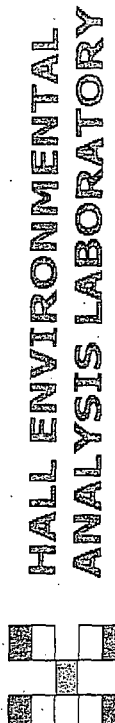
Date	Time	Matrix	Sample Request ID
2-15-11	1045	SOL	T-35-1
	1055		T-35-2
	1110		T-35-3
	1137		T-35-4
	1130		T-36-5
			5 AT 12/16/11

Relinquished by: Sean Ukle Date: 2-15-11 Time: 1300

Relinquished by: Don Olsen Date: 11-16-11 Time: 1040

Received by: Tom Fleeper Date: 12-15-11 Time: 1300

Received by: Sean Ukle Date: 12/14/11 Time: 1040



**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 + TMB's (8021)									
BTEX + MTBE + TPH (Gas only)									
TPH Method 8015B (Gas/Diesel)									
TPH (Method 418.1)									
EDB (Method 504.1)									
8310 (PNA or PAH)									
RCRA 8 Metals									
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)									
8081 Pesticides / 8082 PCB's									
8260B (VOA)									
8270 (Semi-VOA)									
DRO / 6RO (8015M)									
Air Bubbles (Y or N)									

Remarks: Per Beck - Add TCEP, PCEA & to all samples

8260

8270

RCRA AT 12/12/11

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Wednesday, February 08, 2012 7:21 AM
To: 'Larsen, Thurman'; VanHorn, Kristen, NMENV
Subject: RE: SEMI-ANNUAL BIO-VENTING MONITORING REPORT #3

Thurman:

Good morning. It appears that VOCs are declining at most monitoring locations.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

From: Larsen, Thurman [<mailto:Thurman.Larsen@wnr.com>]
Sent: Monday, February 06, 2012 1:16 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Subject: SEMI-ANNUAL BIO-VENTING MONITORING REPORT #3

Dear Kristen and Carl,

The above attachment is the Semi-annual Bio-venting Monitoring Report #3 for the passive bio-venting and remediation project of the ULSD tanks (T-115/116) area. I have included the entire report as a "*pdf" attachment above. If you should have any questions regarding this report, please either call me directly or via e-mail. Also, I will be following this report up with an hard copy for your review.

Regards,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Monday, February 06, 2012 1:16 PM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Subject: SEMI-ANNUAL BIO-VENTING MONITORING REPORT #3
Attachments: SEIMI-ANNUAL BIO-VENTING REPORT #3.pdf

Dear Kristen and Carl,

The above attachment is the Semi-annual Bio-venting Monitoring Report #3 for the passive bio-venting and remediation project of the ULSD tanks (T-115/116) area. I have included the entire report as a "*pdf" attachment above. If you should have any questions regarding this report, please either call me directly or via e-mail. Also, I will be following this report up with an hard copy for your review.

Regards,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

February 6, 2012

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
1301 Siler Road, Building B
Santa Fe, NM 87507
Attn: Kristen Van Horn

New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division (OCD)
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Carl Chavez

Re: **REPORT #3:**
Semi-annual Report submittal for Passive Bioremediation (Bio-ventilation) Project for
Ultra Low Sulfur Diesel (ULSD) remediation in accordance with NSR Permit No.
0633-M8-R3, Part A.214

Dear Ms. Van Horn and Mr. Chavez:

On October 16, 2010, Western Refining Company, L.P. (Western) - Gallup Refinery (the "facility") was granted New Source Review (NSR) Permit 0633-M8-R3 which, under Part 1.214,, allowed the installation of a Passive Bioremediation (Bio-Ventilation) System for the Ultra Low Sulfur Diesel (ULSD) fuel spill that occurred at the facility. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard. As part of this permit allowance, Western is required to submit semi-annual reports to the Agency. This semi-annual report includes monitoring data and analytical results from July 1, 2011 through December 31, 2011 in order to meet the requirements of the NSR permit and provides both a discussion and statistical analysis to the effectiveness of the remediation system.

In addition, Western will attempt to address the questions and/or concerns that were posed by the Agency in its July 22, 2011 email.

Question #1:

"It is not clear if Western is using a dilution kit or not, but that would not account for such high PID readings. Is Western using response factors and not showing that in the data?"

Response:

Western Leak Detection and Repair (LDAR) contractors do not use dilution kits to obtain PID measurements. These measurements are collected from each standpipe individually. The response factor is not shown in the data table but the response

time is included in the "QC Calibration Form" shown under the "Response Time" section. Please refer to the attached "Calibration and Drift Assessment Form."

Question #2:

"Western hasn't commented about the PID numbers being highly variable and may prove difficult to demonstrate remediation is effective."

Response:

Concentration variability was addressed in Semi-annual Report #2 where a negative trend was established between the time since monitoring began and daily average volatile organic compound (VOC) concentrations. Section 1 of that report presents a regression analysis which indicates a decrease in VOC concentrations over time (i.e. a negative slope) since monitoring began. Furthermore, the daily average VOC concentration shown in that report (15,256 parts per million) has decreased by 6.7 percent to a concentration of 14,233 ppm in the December 2011 monitoring results. Individual fluctuations are attributable to a number of factors including ambient temperature variations, atmospheric and soil moisture contents, individual point source concentrations at time of deposition, and the non-uniformed soil conditions surrounding each individual standpipe. Further statistical evaluation and analysis provides additional assurance that effective remediation is in progress. Please refer to the discussion below for further details.

This report includes several attachments including the Bio-ventilation Monitoring Log (Attachment 1), Linear Regression Statistical Analysis Summary (Attachment 2) and the Daily Average VOC Concentration versus Time graph (Attachment 3). Also included in Attachment 4 is the QA/QC data provided by the LDAR contractor. A detailed discussion of each will follow below.

VOC Monitoring and QA/QC Procedures

LDAR personnel conduct the VOC monitoring using a Flame Ionizing Detector (FID) (TVA-1000) in accordance with the United States Environmental Protection Agency (U.S. EPA) Method 21. LDAR personnel use the QA/QC procedures for VOC monitoring on a daily basis as prescribed by Method 21. As mentioned above, Western LDAR contractors do not use a dilution kit to obtain PID measurements. These measurements are collected from each standpipe individually. The response factor is not shown in the data table but is included in the "QC Calibration Form" shown in the "Response Time" section. Please refer to the attached "Calibration and Drift Assessment Form" in Attachment 4.

Monitoring Schedule

Initial VOC monitoring was conducted on a bi-weekly basis from December 2010 through January 2011 in order to establish a VOC baseline concentration. In February 2011, VOC monitoring frequency was changed from a bi-weekly to a monthly basis. Western conducted

monthly VOC monitoring through June 2011. Beginning on July 1, 2011, Western commenced a quarterly VOC monitoring schedule. One sampling event was conducted in the 3rd quarter of 2011 (September 28) and three sampling events were conducted in the 4th quarter (November 7, November 15, and December 12) to further assure the validity of the sampling results.

Discussion of Semi-annual Monitoring Period Results

The daily average VOC concentration for all sampling points combined was calculated for each sampling event and is reflected at the bottom of each column in the Bio-ventilation Monitoring Log. The Daily Average VOC Concentration and Temperature versus Time plot reflects an overall decrease in the VOC concentration from the initial event (December 7, 2010); however, there is an increase from the daily average value in the Semi-annual Report #2. The "overall" average of the system, which is the average of each sampling point combined over all sampling events, in Report #2 is 15,256 ppm and the overall average of the system as shown here is 15,891 ppm. This indicates an overall VOC increase of 635 ppm, which is primarily due to the September 28, 2011 sampling event on which several sampling points [C(8), C(9), C(14), and C(15)] resulted in sampling spikes. These abnormally high values tend to skew the actual trend resulting in a slight increase in the overall system efficiency. Although the exact cause of these sampling spikes is unknown, higher values may be the result of this semi-annual sampling period occurring during the warmer months. Soil temperatures during September reach near their annual peak which increases the volatility of the spilled material.

Regardless of individual daily spikes or seasonal impacts, the overall daily average VOC concentration has decreased over time as indicated by the negative slopes consistently calculated in the Linear Regression Statistical Analysis Summary. The initial daily average VOC concentration on December 7, 2010 was measured as 27,847 ppm and the daily average from December 12, 2011 was measured at 9,463 ppm. The data indicates that there is an average negative slope of -23.6 ppm per day with a 60.0% probability that this trending slope exists. Further detail and explanation of the statistical analysis will be provided below to further describe these calculations and provide additional confirmation on the bio-ventilation remediation system's VOC reduction progress.

The graph of the "Daily Average VOC Concentration versus Time" illustrates the reduction in VOC concentration over time. The individual spikes on 12/27/2010 (42,589 ppm), 2/17/2011 (28,850 ppm), and 9/28/2011 (34,654 ppm) tend to skew the overall trending slope and therefore reduces the overall efficiency. These individual fluctuations are not uncommon and, as mentioned before, are partially due to ambient temperature variations, individual point source concentrations at time of deposition, and the non-uniformed soil conditions surrounding each individual standpipe. However, by fitting an exponential curve to the daily average VOC concentration one can see a definitive decrease in the overall VOC concentrations in the system. As expected, the bio-ventilation system's daily average VOC concentration has a high initial concentration with an exponential decay over time.

The relative outside temperature has been plotted in conjunction with the daily average VOC concentration in the "Daily Average VOC Concentration versus Time" graph as a mode of comparison. There appears to be a correlation between the outside temperature and the VOC

concentration; however, several other variables contribute to the overall VOC concentrations and impact the significance of the temperature and VOC concentration correlation. Also, the temperature represents the average daily atmospheric temperature and does not reflect the soil temperature thus the correlation is time lagging. Concentrations tend to increase in the late summer months when the soil temperature is near its annual peak and appear to be declining again as the winter months approach and ground temperatures again decrease.

The daily average VOC concentration per sampling event has been trending downward from February 2011 which is indicative of a reduction in VOC Concentration. The initial VOC concentration measured on December 7, 2010 was 27,847 ppm. From December 7, 2010 to February 2011, the daily concentrations ranged from the initial value of 27,847 ppm to a maximum concentration of 42,589 ppm (December 27, 2010), to a minimum value on January 21, 2011 of 6345 ppm. In February 2011, monthly sampling began and on February 17, 2011 the daily average VOC concentration was 28,850 ppm. Over the next four months (i.e., March 2011 through June 2011) the daily average declined significantly relative to the first three months of sampling with a minimum of 82 ppm (March 22, 2011) and a maximum of 7,881 ppm (June 28, 2011). The overall average VOC concentration of all thirteen daily sampling events is 15,891 ppm which represents a 42% overall reduction in the VOC concentration from the initial sampling event (27,847 ppm). In Semi-annual Report #2, the overall daily average was 15,256 ppm thus there has been an increase in the overall average of 635 ppm that equates to an overall increase of 4.2% within this semi-annual monitoring period. This increase is primarily due to individual VOC fluctuations or spikes at standpipes # 8, 9, 14, and 15.

The major focus should be on the overall efficiency of the system and not individual fluctuations. These individual VOC fluctuations should be dampened using statistical analysis in order to analyze the system more effectively thus a linear regression analysis was applied to each monitoring point to determine if there is indeed a statistically valid negative trend in the VOC concentrations over the monitoring period.

The overall average slope was -23.56 ppm per day which indicates a declining trend in the VOC concentration over time. The F-value calculated in the regression analysis, and shown in Attachment 2, is compared to the F-distribution to determine the probability that a given F-value occurs by chance. Subtracting this probability from 1 provides a measure of the likelihood that the established linear trend exists between the VOC concentration and time. The average probability of a linear trend existing is 0.60 (60%); however, similar to the analysis above the data is skewed due to the sample spikes at several sampling locations. Many of the sampling locations indicate negative trends with greater than 95% confidence.

Conclusion

Passive bioremediation (bio-ventilation) of ultra low sulfur diesel (ULSD) for spill material in order to augment reduction of VOC concentration is a time dependent process. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard and monthly VOC monitoring through December 2011 per the requirements of the NSR permit has been performed in order to evaluate the effectiveness of the bio-ventilation system. Although several higher than average sampling measurements



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occurred within the last semi-annual period, the average VOC concentrations at most all monitoring locations appears to be decreasing. To confirm this statement, a linear regression statistical analysis was performed in order to fit a linear trend line through the VOC concentration versus time data set. The trend line indicates that a negative slope exists in this data set and for the majority of the sampling locations greater than 95% confidence that this trend line is statistically valid exists.

Western intends to continue the quarterly sampling routine until satisfactory remediation has occurred and will submit to the Agency additional semi-annual progress reports approximately thirty days after the end of each semi-annual period. If you should require any additional information or assistance in this matter, please contact me at the number listed below or via e-mail.

Sincerely,

A handwritten signature in black ink, appearing to read 'Beck Larsen'.

Beck Larsen, CHMM/REM/PG
Environmental Engineer
Western Refining Southwest

Direct Line: (505) 722-0258

e-mail: Thurman.larsen@wnr.com

Cc: File

Attachment: #4- Qa/Qc Data; Calibration and Drift Assessment Form

Bio-Ventilation Monitoring Log Attachment 1

Passive Bioremediation Project
Semi-Annual Report for July 1 – December 31, 2011
Western Refining Company, L.P. – Gallup Refinery

Bioventilation Monitoring Log

		READING (PPM)															
		DATE															
	Date -->	12/7/2010	12/27/2010	1/14/2011	1/21/2011	2/17/2011	3/22/2011	4/27/2011	5/27/2011	6/28/2011	9/28/2011	11/7/2011	11/15/2011	12/12/2011			
Map Location	Days from Start of Monitoring	0.00	20.00	38.00	45.00	72.00	105.00	141.00	171.00	203.00	295.00	335.00	343.00	370.00	AVERAGE		
	Temp (deg F)	41	32	28	36	41	37	31	71	93	62	36	37	32			
	Tag #																

Linear Regression Statistical Analysis Summary Attachment 2

Passive Bioremediation Project
Semi-Annual Report for July 1 – December 31, 2011
Western Refining Company, L.P. – Gallup Refinery

Linear Regression Statistical Analysis Summary

C(1)	
-8.26	3257.10
3.78	787.85
0.30	1743.69
4.78	11.00
14521474.10	33444855.59

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.992

Probability that trend exists (1 - P(F<x)).

C(2)	
-22.12	7465.03
6.62	1379.51
0.50	3053.14
11.16	11.00
104062147.23	102537993.85

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

1.000

Probability that trend exists (1 - P(F<x)).

C(3)	
-53.69	20648.06
26.66	5554.61
0.27	12293.53
4.06	11.00
612850537.85	1662438507.84

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.986

Probability that trend exists (1 - P(F<x)).

C(4)	
-90.34	38665.18
60.47	12596.97
0.17	27879.73
2.23	11.00
1735158198.42	8550075558.50

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.901

Probability that trend exists (1 - P(F<x)).

C(5)	
42.49	2962.28
41.56	8658.67
0.09	19163.46
1.05	11.00
383848975.90	4039620045.18

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.529

Probability that trend exists (1 - P(F<x)).

C(6)	
5.03	874.11
5.47	1139.49
0.07	2521.93
0.84	11.00
5369140.86	69961496.22

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.392

Probability that trend exists (1 - P(F<x)).

C(7)	
3.42	1947.98
7.54	1569.97
0.02	3474.67
0.21	11.00
2481310.82	132806836.88

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.007

Probability that trend exists (1 - P(F<x)).

C(8)	
14.82	20133.28
65.53	13650.74
0.00	30211.96
0.05	11.00
46668502.94	10040387735.06

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.000

Probability that trend exists (1 - P(F<x)).

C(9)	
88.63	18261.29
75.66	15762.58
0.11	34885.90
1.37	11.00
1669952812.35	13387282896.88

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.696

Probability that trend exists (1 - P(F<x)).

C(10)	
-94.47	41599.27
65.63	13672.20
0.16	30259.45
2.07	11.00
1897207523.08	10071974984.62

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.879

Probability that trend exists (1 - P(F<x)).

C(11)	
-41.76	19342.90
28.72	5982.63
0.16	13240.81
2.11	11.00
370723758.89	1928510128.03

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.885

Probability that trend exists (1 - P(F<x)).

C(12)	
-31.63	10831.53
10.76	2240.57
0.44	4958.86
8.65	11.00
212723912.66	270493491.03

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.999

Probability that trend exists (1 - P(F<x)).

C(13)	
-201.66	90613.06
145.17	30242.93
0.15	66933.97
1.93	11.00
8645141341.93	49281719356.99

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.855

Probability that trend exists (1 - P(F<x)).

C(14)	
55.37	1261.72
59.28	12350.06
0.07	27333.27
0.87	11.00
651803322.05	8218186738.26

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.412

Probability that trend exists (1 - P(F<x)).

C(15)	
-44.94	35544.84
71.67	14930.55
0.03	33044.45
0.39	11.00
429267303.97	12011289465.11

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.068

Probability that trend exists (1 - P(F<x)).

C(16)	
2.10	2859.90
10.87	2265.40
0.00	5013.81
0.04	11.00
933146.57	276521370.66

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

0.000

Probability that trend exists (1 - P(F<x)).

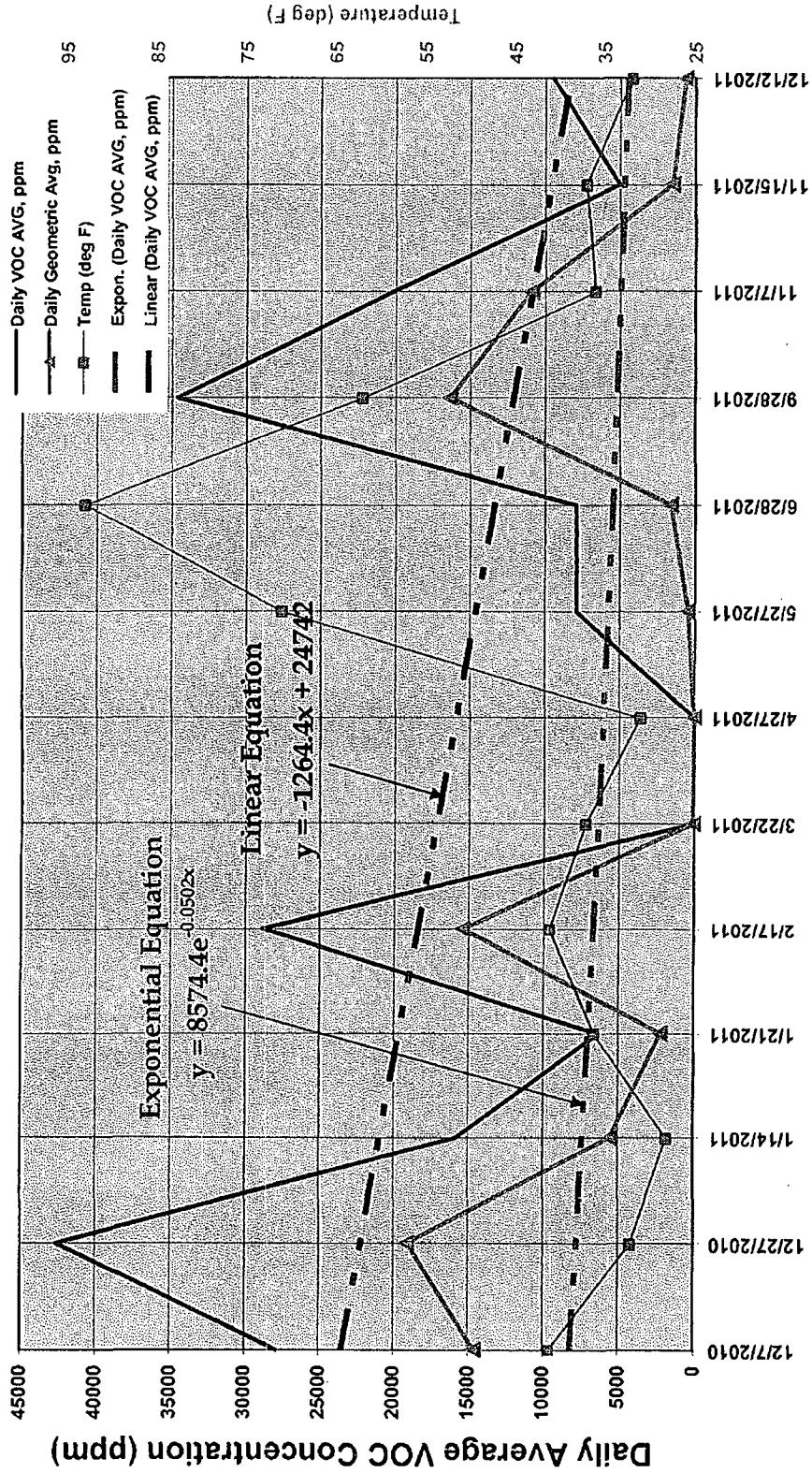
Overall Average	
-23.56	19766.72
30.37	6326.83
0.05	14002.60
0.60	11.00
118047820.68	2156801762.32

Key	
Slope	Intercept
SE of Slope	SE of Intercept
R ² (Coefficient of Determination)	SE of C(1)
F Statistic	Degrees of Freedom
Regress Sum of Squares	Residual Sum of Squares

Daily Average VOC Concentration versus Time Attachment 3

Passive Bioremediation Project
Semi-Annual Report for July 1 - December 31, 2011
Western Refining Company, L.P. - Gallup Refinery

Daily Average VOC Concentration and Temperature versus Time



**Calibration and Drift Assessment Form
Attachment 4**

Passive Bioremediation Project
Semi-Annual Report for July 1 - December 31, 2011
Western Refining Company, L.P. - Gallup Refinery

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122195 - TVA1000

DATE CALIBRATED: 9/28/11 9:59

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1,987	9,798
READING #2	1,993	9,801
READING #3	1,996	9,803
ERROR PRECISION	2.15	1.88
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	6	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 9/28/11 9:59

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT;	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	501	9,798
READING #2	503	9,801
READING #3	505	9,803
ERROR PRECISION	0.20	1.88
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 9/28/11 12:05

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2,013	9,895
READING #2	2,013	9,895
READING #3	2,013	9,895
ERROR PRECISION	3.23	2.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 9/28/11 12:06

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	519	9,895
READING #2	519	9,895
READING #3	519	9,895
ERROR PRECISION	2.98	2.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 9/28/11 16:01

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2,025	9,795
READING #2	2,025	9,795
READING #3	2,025	9,795
ERROR PRECISION	3.85	1.82
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 9/28/11 16:01

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	526	9,795
READING #2	526	9,795
READING #3	526	9,795
ERROR PRECISION	4.37	1.82
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 9:40

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1,920	9,715
READING #2	1,929	9,722
READING #3	1,921	9,725
ERROR PRECISION	1.37	1.05
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	5	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 9:40

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	506	9,715
READING #2	503	9,722
READING #3	505	9,725
ERROR PRECISION	0.13	1.05
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1,961	9,772
READING #2	1,961	9,772
READING #3	1,961	9,772
ERROR PRECISION	0.56	1.58
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/23/2012 AT 3:06:00PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	510	9,772
READING #2	510	9,772
READING #3	510	9,772
ERROR PRECISION	1.19	1.58
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 15:50

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1,982	9,809
READING #2	1,982	9,809
READING #3	1,982	9,809
ERROR PRECISION	1.64	1.96
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/23/2012 AT 3:06:00PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 11/7/11 15:50

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	516	9,809
READING #2	516	9,809
READING #3	516	9,809
ERROR PRECISION	2.38	1.96
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

Calibration and Drift Assessment Form

Instrument	1058210				Extension Probe used: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>
Date & Time Calibrated	11/15/2011		11:07		Pump Flow: 1.3
Technician & Facility	Western Refinery, Gallup NM 1323				
CALIBRATION GASES					
	LOW	MID-1	MID-2	HIGH	ZERO
Certified Concentration	504	1950		9620	0
Cylinder #	1058171	T7224100		C6599012	K-094397
Expiration Date	12/5/13	12/5/13		12/5/13	0
METER CERTIFICATION RESPONSE					
	LOW	MID-1	MID-2	HIGH	ZERO
Reading #1	504 PPM	1899 PPM	PPM	9700 PPM	0 PPM
Reading #2	504 PPM	1903 PPM	PPM	9695 PPM	0 PPM
Reading #3	502 PPM	1903 PPM	PPM	9696 PPM	0 PPM
Average Of Readings	504	1902		9697	0
Error, Precision					
Passed	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

$$\% \text{ERROR, PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF CALIBRATION GAS})} \times 100$$

Precision for the instrument is accepted when the average of the absolute value of % error is equal to or less than ten percent ($\leq 10\%$).

RESPONSE TIME					
	LOW	MID-1	MID-2	HIGH	ZERO
First Reading	3	3		4	4
Second Reading	4	3		3	4
Third Reading	4	4		4	4
Average	3.7	3.3		3.7	4
Passed	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

Acceptable response time (passed) should be 30 seconds or less from the time the leak definition calibration gas is introduced to the time the instrument reading reaches 90% of the final stable reading (the concentration of the calibration gas).

The high gas response times will be entered into LEADERS™ to become the official calibration record

MIDDAY CALIBRATION CHECK IF APPLICABLE					
	LOW	MID-1	MID-2	HIGH	ZERO
Time					
Meter reading				USE	
Difference (AM average - PM reading)					
10% of the AM reading average	50.4	190.2		969.7	0
Is the difference greater than 10% of the AM average reading?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO
END OF DAY CALIBRATION CHECK					
	LOW	MID-1	MID-2	HIGH	ZERO
Time	15:00	15:00		15:00	15:00
Meter reading	511	1939		9757	0
Difference (AM average - PM reading)	7	37		66	0
10% of the AM reading average	50.4	190.2		969.7	0
Is the difference greater than 10% of the AM average reading?	YES / NO	YES / NO	YES / NO	YES / NO	YES / NO

Dilution Probe Response Time: _____

Data Entered into Leaders: _____

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 10:17

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1,955	9,501
READING #2	1,960	9,491
READING #3	1,962	9,496
ERROR PRECISION	0.46	1.29
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 10:18

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	505	9,501
READING #2	506	9,491
READING #3	504	9,496
ERROR PRECISION	0.20	1.29
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	5	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2,008	9,592
READING #2	2,008	9,592
READING #3	2,008	9,592
ERROR PRECISION	2.97	0.29
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 15:13

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9,592
READING #2	511	9,592
READING #3	511	9,592
ERROR PRECISION	1.39	0.29
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 15:57

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 F	12/05/2008	1,950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT:	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2,031	9,682
READING #2	2,031	9,682
READING #3	2,031	9,682
ERROR PRECISION	4.15	0.64
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/12/11 15:58

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 08	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0003	AIR ULTRA ZERO CYLINDER#TG-074076DOCUMENT#	04/26/2011	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	529	9,682
READING #2	529	9,682
READING #3	529	9,682
ERROR PRECISION	4.96	0.64
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
6	6	6	6	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/23/2012 AT 3:06:22PM

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, November 10, 2011 2:02 PM
To: 'Riege, Ed'; VanHorn, Kristen, NMENV
Cc: Larsen, Thurman; Morgan, Loretta; Dorsey, Alvin
Subject: RE: Confirmation Soil Sampling Plan

Ed:

OCD is in receipt of your remediation plan based on the Tank 35 release.

I'll be discussing the soil sampling plan with Kristen soon and we'll get back with you soon. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:
<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

From: Riege, Ed [<mailto:Ed.Riege@wnr.com>]
Sent: Thursday, November 10, 2011 12:37 PM
To: Chavez, Carl J, EMNRD; VanHorn, Kristen, NMENV
Cc: Larsen, Thurman; Morgan, Loretta; Dorsey, Alvin
Subject: Confirmation Soil Sampling Plan

Carl,
The soil cleanup work is to begin on Monday November 14. The Confirmation Soil Sampling Plan is attached for your and Kristen's approval.

Thanks,
Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

From: Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]
Sent: Thursday, October 27, 2011 7:31 AM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

Good morning.

The C-141 Form is marked final report, but the corrective actions have not been completely implemented yet. Please resubmit the form as the initial report and when the corrective actions are completed, Western must submit the final report with all of the attached supporting documentation of the actions taken to correct the situation. Also, please notify the agencies when the work is scheduled to begin so we may be present to witness the corrective action(s).

Please contact me if you have questions. Thank you.

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Sent: Wednesday, October 26, 2011 3:50 PM
To: Chavez, Carl J, EMNRD
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Hi Carl

Sorry I had the incorrect date. Attached is the revised C-141 and original placed in mail to you. Thanks.

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

From: Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]
Sent: Tuesday, October 25, 2011 4:33 PM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

The C-141 does not concur with the OCD e-mail dated October 3, 2011 (see OCD Online C-141s thumbnail page 2). Could you please re-evaluate the C-141 information and revise it and resend it with the revised information by COB tomorrow.

Thank you.

Carl J. Chavez, CHMM
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OCD does not see this form in our files. Thank you.

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November 10, 2011

Mr. Carl J. Chavez
Environmental Engineer
New Mexico Energy, Minerals, and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Confirmation Soil Sampling Plan, October 2, 2011 Tank 35 Release, Western Refining Company
Southwest, Inc., Gallup Refinery, Gallup, New Mexico

Dear Mr. Chavez:

Western Refining Company's Gallup Refinery (Gallup) has prepared this Confirmation Soil Sampling Plan to guide Tank 35 confirmation soil sampling activities. Confirmation soil sampling will be conducted to verify that soil contaminated as a result of the October 2, 2011 release is removed during soil removal activities. A release of a mixture of stormwater, process water, and oily wastewater occurred when Tank 35 overflowed on October 2, 2011. The location of Tank 35 is shown on Figure 1. Form C-141 was completed and submitted to the New Mexico Oil Conservation Division (OCD) to report the release on October 3, 2011. A copy of Form C-141 is included as Attachment A. At the time of the release, Tank 35 was being used to temporarily hold process waters so that API separator issues could be addressed. A heavy rain event occurred during this time frame and runoff water from the process units caused Tank 35 to overflow. Released fluids were contained by the tank berm. The refinery's Maintenance Department immediately began recovery of released fluids using a vacuum truck. Recovered fluids were temporarily stored in Tank 105 (slop oil tank). Based on the volume of fluids stored in Tank 105, approximately 1,240 barrels of process water/stormwater and 13 barrels of oily wastewater were recovered from the Tank 35 overflow.

Soil removal work, consisting of excavating contaminated gravel and soil, is scheduled to commence on November 14, 2011. Gallup believes that contaminated soil may be visually identified by staining and intends to excavate visually stained soil within the Tank 35 berm. Contaminated soil will be managed as hazardous waste and will be shipped off-site for disposal. After visually stained soil is excavated, Gallup proposes to collect five confirmation soil samples to confirm that the contamination associated with the October 2, 2011 release has been removed.

Trihydro Corporation (Trihydro) inspected the release area on October 28, 2011. Areas exhibiting staining were evident during Trihydro's inspection. Trihydro assisted in identifying five locations representative of the areas exhibiting the highest degree of staining. These locations were staked by Trihydro. Gallup intends to collect the confirmation samples from these five locations after soil removal is complete. Approximate confirmation sample locations are shown on Figure 2. Based on the observed staining, these five locations are representative of areas most heavily impacted by the October 2, 2011 release. Therefore, if contaminant concentrations in the confirmation soil samples are less than applicable cleanup standards, contamination associated with the October 2, 2011 release has likely been removed.

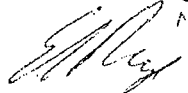
Mr. Carl J. Chavez
November 10, 2011
Page 2

Care will be taken during soil removal activities to preserve the staked locations (i.e. staked locations will be surveyed with a global positioning system or their distance from a stationary reference point will be measured so that the areas can be relocated after soil removal activities are complete.) Soil samples will be collected using a clean, stainless steel trowel from approximately 0 to 6 inches below the post-excavated ground surface. The trowel will be decontaminated before and after sample collection using an Alconox or Simple Green solution followed by a de-ionized water rinse. The sampler will use clean latex gloves in order to minimize cross contamination. The sampler will use a new pair of latex gloves for each sample location. Samples will be collected in laboratory-provided sample containers and placed on ice or refrigerated immediately after collection. The soil samples will be analyzed for volatile organic compounds (VOCs) by EPA Method 8260, semi volatile organic compounds (SVOCs) by EPA Method 8270, diesel range organics extended (DRO) and gasoline range organics (GRO) by EPA Method 8015M, and RCRA metals. One sample will be submitted from each of the five locations; samples will not be composited.

Analytical results will be compared to the New Mexico Environment Department (NMED) industrial/occupational soil screening standards. If exceedances of the NMED industrial/occupational soil screening standards are identified, additional excavation will be conducted in the area from which the exceeding sample was collected. An additional confirmation sample will be collected to confirm that the additional excavation was successful in removing soil contamination. This process will be repeated until confirmation samples do not exceed the NMED industrial/occupational soil screening standards.

Soil removal activities are scheduled to commence on November 14. Confirmation soil samples will be collected pending OCD approval of this correspondence. If you have any questions or comments, please do not hesitate to call me at (505) 722-0217.

Sincerely,
Western Refining Company



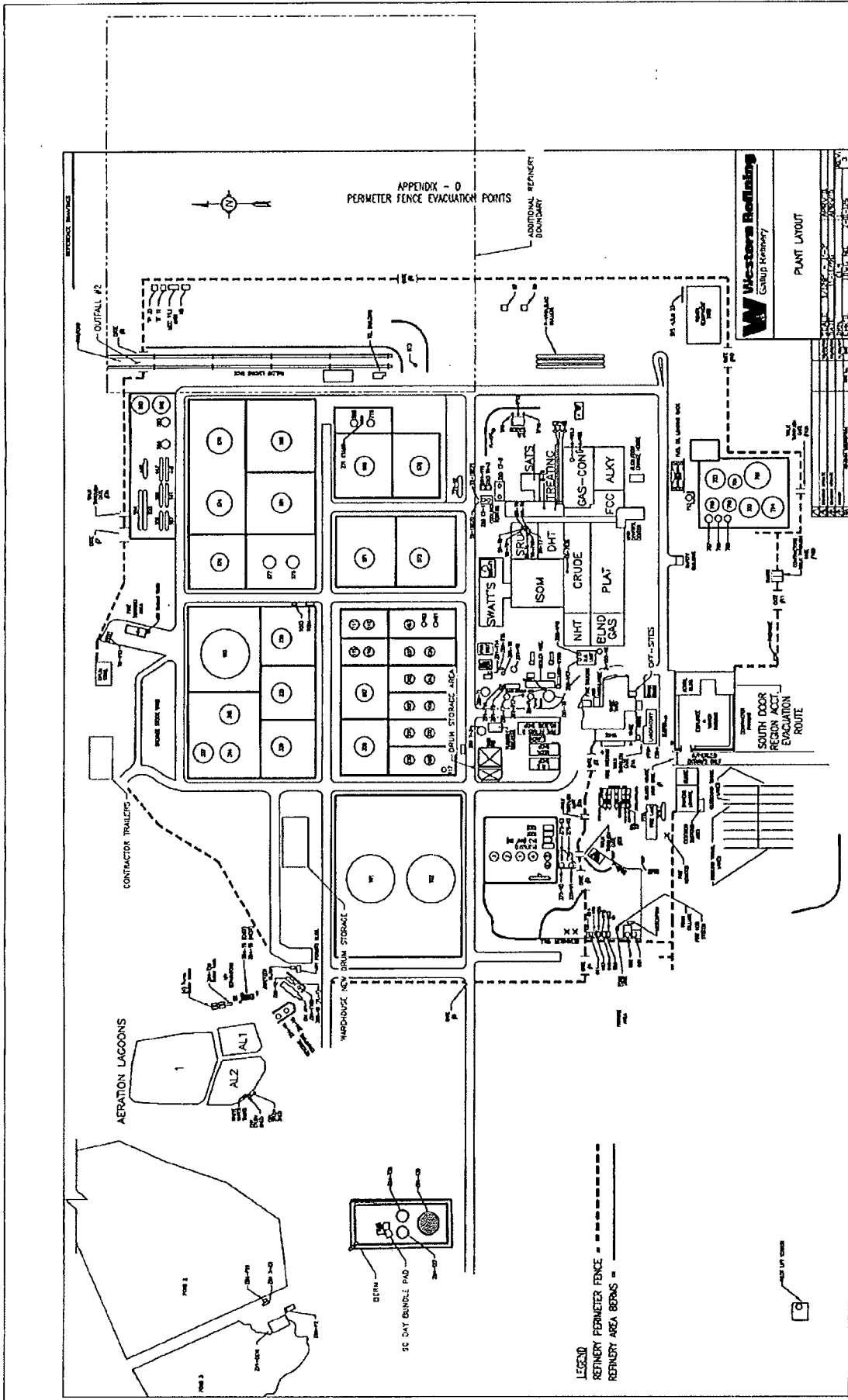
Ed Riege
Environmental Manager

697-039-002

Attachments

cc: L. Morgan, Western Refining
G. Price, Trihydro Corporation
K. Van Horn, NM

FIGURES



Trihydro
 13330 N. 19th Ave.
 Suite 200
 Phoenix, Arizona 85021
 (602) 998-1111
 www.trihydro.com

Western Refining
 Gallup Refinery
 Gallup, New Mexico

**FIGURE 1
LOCATION OF TANK 35
TANK 35 CONFIRMATION SOIL SAMPLING PLAN**

**WESTERN REFINING COMPANY L.L.C.
GALLUP REFINERY
GALLUP, NEW MEXICO**

Drawn By: REP Checked By: GP Scale: 1" = 250' Date: 11/17/11 File: 697-TANK35LAYOUT-201111

EXPLANATION
 TANK 35

**FIGURE 1
LOCATION OF TANK 35
TANK 35 CONFIRMATION SOIL SAMPLING PLAN**

Western Refining
Gallup Refinery

PLANT LAYOUT

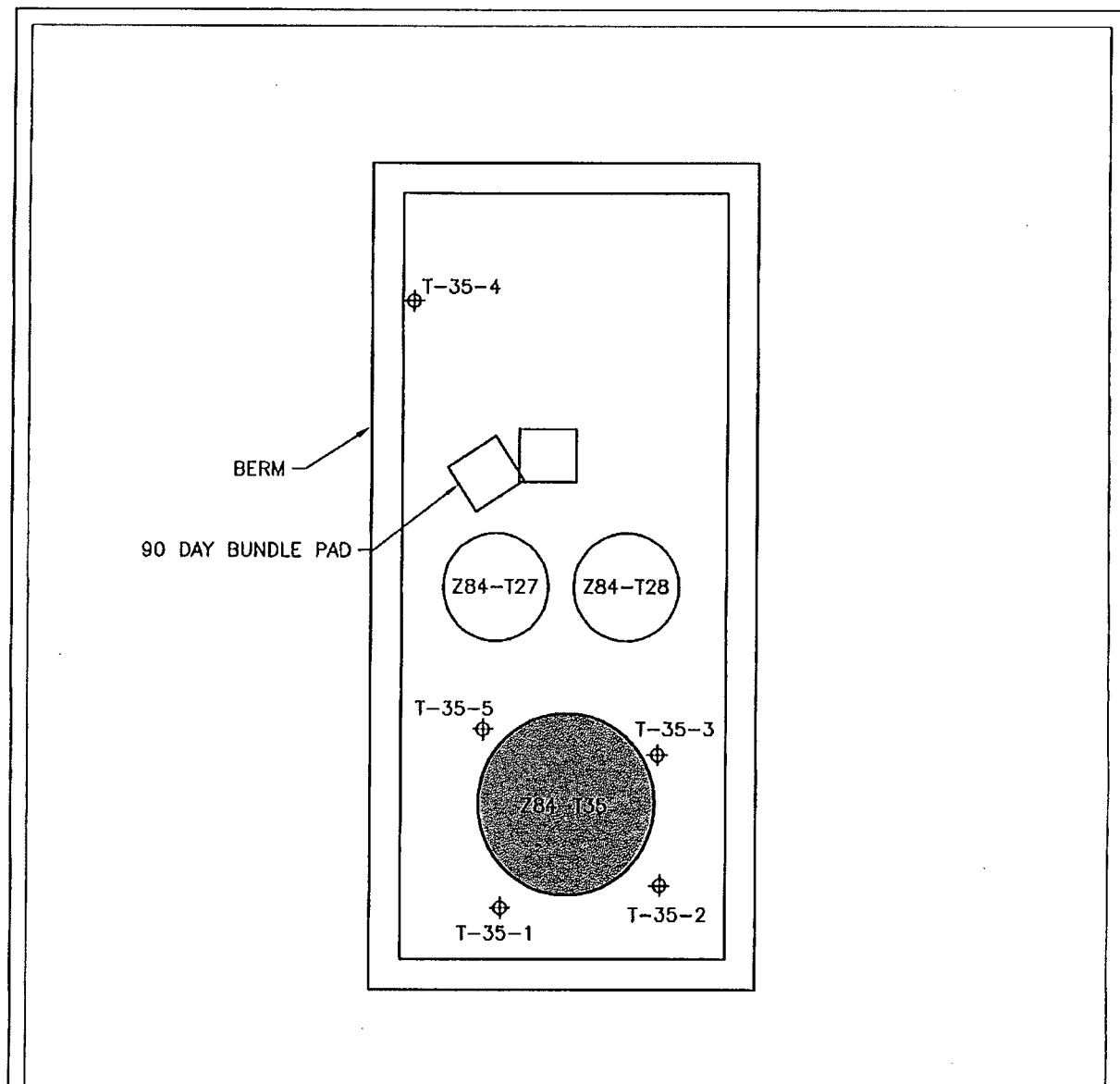
**APPENDIX - 0
PERIMETER FENCE EVACUATION PORTS**

LEGEND
 REFINERY PERIMETER FENCE
 REFINERY AREA BEINGS



**FIGURE 1
LOCATION OF TANK 35
TANK 35 CONFIRMATION SOIL SAMPLING PLAN**

**WESTERN REFINING COMPANY L.L.C.
GALLUP REFINERY
GALLUP, NEW MEXICO**

Drawn By: REP Checked By: GP Scale: 1" = 250' Date: 11/17/11 File: 697-TANK35LAYOUT-201111



EXPLANATION

-  T-35-1 APPROXIMATE LOCATION OF PROPOSED CONFIRMATION SOIL SAMPLE
 TANK 35




Trihydro
 CORPORATION
 1252 Commerce Drive
 Laramie, Wyoming 82070
 www.trihydro.com
 (P) 307/745.7474 (F) 307/745.7728

FIGURE 2

APPROXIMATE LOCATIONS OF PROPOSED
 CONFIRMATION SOIL SAMPLES
 TANK 35 CONFIRMATION SOIL SAMPLING PLAN
 WESTERN REFINING COMPANY L.L.C.
 GALLUP REFINERY
 GALLUP, NEW MEXICO

Drawn By: REP

Checked By: GP

Scale: 1" = ~80'

Date: 11/1/11

File: 697-TANK35LAYOUT-201111

ATTACHMENT A

FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: Western Refining Southwest Inc.	Contact: Loretta Morgan	
Address: I-40 Exit 39 Jamestown, NM 87347	Telephone No: 505-722-3833	
Facility Name: Gallup Refinery	Facility Type: Oil Refinery	
Surface Owner: Western Refining	Mineral Owner: Western Refining	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release: Oily Waste Water 13 bbls (oil) / 1240 bbls (process and stormwater)	Volume of Release: Estimate 13 barrel of oil	Volume Recovered:
Source of Release: Tank 35 overflow	Date and Hour of Occurrence: 10/2/2011 3:40 pm	Date and Hour of Discovery: 10/2/2011 3:40 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ruth Horowitz, NMED Hazardous Waste Bureau (phone call) Kristen VanHorn, NMED Hazardous Waste Bureau (phone call) Brando Powell, NMED Hazardous Waste Bureau (phone call) Carl J. Chavez, NMEMNRD, Oil Conservation Division (phone call)	
By Whom? Loretta Morgan	Date and Hour: 10/3/2011 1:23 pm (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. No, did not impact watercourse.	
If a Watercourse was Impacted, Describe Fully. Not applicable		
Describe Cause of Problem and Remedial Action Taken: At approximately 3:40 pm on 10/2/2011, Tank 35 overflowed due to heavy rain. API was shutdown due to foaming issues so Tank 35 was holding process water while waiting for the API operator to troubleshoot the API foaming issue. During this period, it started to rain heavily and all runoff water from the process units overflowed Tank 35. API operator was trying to manually open the valves to the overflow tanks (Tank 27 and 28), but did not open in time. Tank 35 overflowed water from the vents. Immediate action was taken to clean up the spill. The Maintenance Department was called out to start vacuuming up the area. Overflow did not reach any watercourse and was contained in the berm area of the tank. Approximately 75,600 gallons of rain water and process water first was removed by the vacuum truck and put into T-105 (slop oil tank). Water was then decanted from T-105. The decanting sent process water and storm water from T-105 back to T-35 for reprocessing. The final oil volume in T-105 was determined from a T-105 strapping chart and estimated to be 13 bbls. Rain water was included because during cleanup process, it was still raining. Soil clean-up will commence when able to get heavy equipment into the area.		
Describe Area Affected and Cleanup Action Taken: The area affected is in the dirt berm area of Tank 35. The area is approximately 15 feet by 50 feet where an oily-water mixture had settled. A vacuum truck was used to collect the oily-water mixture. The soil in this berm area is stained with oil. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.		

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

Signature: Mark B. Turri

Printed Name: Mark B. Turri

Title: Refinery Manager - Gallup

E-mail Address: Mark.Turri@wnr.com

Date: 10-26-2011

Phone: 505-722-3833

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

- Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, October 27, 2011 7:31 AM
To: 'Morgan, Loretta'
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

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Oil Conservation Division, Environmental Bureau

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Form C-141
Revised October 10, 2003

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OPERATOR

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Not applicable

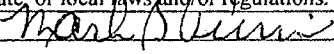
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Mark B. Turri			
Title: Refinery Manager – Gallup		Approved by District Supervisor:	
E-mail Address: Mark.Turri@wnr.com		Approval Date:	Expiration Date:
Date: 10-26-2011	Phone: 505-722-3833	Conditions of Approval:	Attached <input type="checkbox"/>

- Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, October 25, 2011 4:33 PM
To: 'Morgan, Loretta'
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

The C-141 does not concur with the OCD e-mail dated October 3, 2011 (see OCD Online [C-141s](#) thumbnail page 2). Could you please re-evaluate the C-141 information and revise it and resend it with the revised information by COB tomorrow.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

"Why not Prevent Pollution; Minimize Waste; Reduce the Cost of Operations; & Move Forward with the Rest of the Nation?" To see how, go to "Pollution Prevention & Waste Minimization" at:

<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

From: Morgan, Loretta [<mailto:Loretta.Morgan@wnr.com>]
Sent: Tuesday, October 25, 2011 3:27 PM
To: Chavez, Carl J, EMNRD
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV; Riege, Ed; Larsen, Thurman
Subject: RE: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Hi Carl

Sorry, the report was sent out in the mail today. Attached is copy of the C141. Thanks

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

From: Chavez, Carl J, EMNRD [<mailto:CarlJ.Chavez@state.nm.us>]
Sent: Tuesday, October 25, 2011 2:50 PM
To: Morgan, Loretta
Cc: VonGonten, Glenn, EMNRD; VanHorn, Kristen, NMENV
Subject: C-141 for Tank 35 Oily Waste Water Overflow Gallup Refinery (GW-032)

Loretta:

Good afternoon. Did Western send the C-141 for this release that was reported on 10/3/2011?

OCD does not see this form in our files. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/>

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<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

Chavez, Carl J, EMNRD

From: Morgan, Loretta [Loretta.Morgan@wnr.com]
Sent: Monday, October 03, 2011 5:18 PM
To: Powell, Brandon, EMNRD; Chavez, Carl J, EMNRD; Horowitz, Ruth, NMENV; VanHorn, Kristen, NMENV
Cc: Riege, Ed; Larsen, Thurman; Morgan, Loretta
Subject: Western Refining - Gallup Refinery T35 overflow

Hi Brandon

Per our phone conversation, here is a brief summary of our spill that happened over the weekend.

On Sunday October 2, 2011 at approximately 340 pm, T-35 (wastewater/storm water storage tank) overflowed due to heavy rain. Quantity of oily waste water is still to be determined, but Gallup estimates overflow to ground greater than 25 bbls. Spill was contained within the berm area of tank. Response to spill was immediate, as API operator was in the area trying to open valves to T27 and T28 to prevent overflow. Maintenance personnel was called out to vacuum up the water immediately.

Written report to follow, but should you have any questions please call me at (505) 722-0242. Thank you.

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

7010 0290 0002 7135 3112

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: Western Refining Southwest Inc.	Contact: Loretta Morgan	
Address: I-40 Exit 39 Jamestown, NM 87347	Telephone No: 505-722-3833	
Facility Name: Gallup Refinery	Facility Type: Oil Refinery	
Surface Owner: Western Refining	Mineral Owner: Western Refining	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release: Oily Waste Water 13 bbls (oil) / 1240 bbls (process and stormwater)	Volume of Release: Estimate 13 barrel of oil	Volume Recovered:
Source of Release: Tank 35 overflow	Date and Hour of Occurrence: 10/5/2011 3:40 pm	Date and Hour of Discovery: 10/5/2011 3:40 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Ruth Horowitz, NMED Hazardous Waste Bureau (phone call) Kristen VanHorn, NMED Hazardous Waste Bureau (phone call) Brando Powell, NMED Hazardous Waste Bureau (phone call) Carl J. Chavez, NMEMNRD, Oil Conservation Division (phone call)	
By Whom? Loretta Morgan	Date and Hour: 10/6/2011 1:23 pm (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. No, did not impact watercourse.	
If a Watercourse was Impacted, Describe Fully. Not applicable		
Describe Cause of Problem and Remedial Action Taken: At approximately 3:40 pm on 10/5/2011, Tank 35 overflowed due to heavy rain. API was shutdown due to foaming issues so Tank 35 was holding process water while waiting for the API operator to troubleshoot the API foaming issue. During this period, it started to rain heavily and all runoff water from the process units overflowed Tank 35. API operator was trying to manually open the valves to the overflow tanks (Tank 27 and 28), but did not open in time. Tank 35 overflowed water from the vents. Immediate action was taken to clean up the spill. The Maintenance Department was called out to start vacuuming up the area. Overflow did not reach any watercourse and was contained in the berm area of the tank. Approximately 75,600 gallons of rain water and process water first was removed by the vacuum truck and put into T-105 (slop oil tank). Water was then decanted from T-105. The decanting sent process water and storm water from T-105 back to T-35 for reprocessing. The final oil volume in T-105 was determined from a T-105 strapping chart and estimated to be 13 bbls. Rain water was included because during cleanup process, it was still raining. Soil clean-up will commence when able to get heavy equipment into the area.		
Describe Area Affected and Cleanup Action Taken: The area affected is in the dirt berm area of Tank 35. The area is approximately 15 feet by 50 feet where an oily-water mixture had settled. A vacuum truck was used to collect the oily-water mixture. The soil in this berm area is stained with oil. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.		

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

Signature: Mark B. Turri

OIL CONSERVATION DIVISION

Printed Name: Mark B. Turri

Approved by District Supervisor:

Title: Refinery Manager - Gallup

Approval Date:

Expiration Date:

E-mail Address: Mark.Turri@wnr.com

Conditions of Approval:

Attached ☐

Date: ~~12-29-2009~~ 10/21/11

Phone: 505-722-3833

- Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Morgan, Loretta [Loretta.Morgan@wnr.com]
Sent: Monday, October 03, 2011 5:18 PM
To: Powell, Brandon, EMNRD; Chavez, Carl J, EMNRD; Horowitz, Ruth, NMENV; VanHorn, Kristen, NMENV
Cc: Riege, Ed; Larsen, Thurman; Morgan, Loretta
Subject: Western Refining - Gallup Refinery T35 overflow

Hi Brandon

Per our phone conversation, here is a brief summary of our spill that happened over the weekend.

On Sunday October 2, 2011 at approximately 340 pm, T-35 (wastewater/storm water storage tank) overflowed due to heavy rain. Quantity of oily waste water is still to be determined, but Gallup estimates overflow to ground greater than 25 bbls. Spill was contained within the berm area of tank. Response to spill was immediate, as API operator was in the area trying to open valves to T27 and T28 to prevent overflow. Maintenance personnel was called out to vacuum up the water immediately.

Written report to follow, but should you have any questions please call me at (505) 722-0242. Thank you.

Loretta Morgan
Environmental Specialist

Western Refining
Route 3 Box 7
Gallup, NM 87301
Phone: (505) 722-0242
Fax: (505) 722-0268
loretta.morgan@wnr.com

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, September 09, 2011 11:16 AM
To: 'Larsen, Thurman'; VanHorn, Kristen, NMENV
Subject: RE: SEMI-ANNUAL REPORT (#2)- Passive Bio-venting Project for remediating ULSD

Lars:

I sent the msg. below to you on 7/22, but have not heard back.

Lars:

Good afternoon. The agencies are aware of the startup and monitoring situation and that you may already be working to address PID issues and readings in the field, etc.

Consequently, the agencies provide some preliminary review comments based on your most recent submittal. Please respond and/or acknowledge the agencies comments and/or questions listed below.

- 1) It is not clear if Western is using a dilutor kit or not, but that would not account for such high PID readings. Is Western using response factors and not showing that in the data?
- 2) Western hasn't commented about the PID numbers being highly variable and may prove difficult to demonstrate remediation is effective.

Let me know if you would like me to copy and paste your questions on the FID to Beck. We can find out more details.

Thanks in advance.

Could you please respond to the above by COB next Friday, 9/16/2011? Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: <http://www.emnrd.state.nm.us/ocd/>

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<http://www.emnrd.state.nm.us/ocd/environmental.htm#environmental>)

From: Larsen, Thurman [<mailto:Thurman.Larsen@wnr.com>]
Sent: Thursday, June 30, 2011 9:31 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Subject: SEMI-ANNUAL REPORT (#2)- Passive Bio-venting Project for remediating ULSD

Dear Kristen and Carl,

The above attachments includes the cover letter for the semi-annual report (#2) for the passive bio-venting and remediation project of the ULSD tanks (T-115/T-116) area, the Bio-venting Monitoring Log, and Qa/Qc Data for your review. If you should have any questions regarding this report, please either call me directly or send me an e-mail.

Regards,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Friday, July 22, 2011 4:43 PM
To: Larsen, Thurman
Cc: VanHorn, Kristen, NMENV
Subject: Passive Gas Remediation a Few Agency Observations/Questions

Lars:

Good afternoon. The agencies are aware of the startup and monitoring situation and that you may already be working to address PID issues and readings in the field, etc.

Consequently, the agencies provide some preliminary review comments based on your most recent submittal. Please respond and/or acknowledge the agencies comments and/or questions listed below.

1) It is not clear if Western is using a dilutor kit or not, but that would not account for such high PID readings. Is Western using response factors and not showing that in the data?

2) Western hasn't commented about the PID numbers being highly variable and may prove difficult to demonstrate remediation is effective.

Let me know if you would like me to copy and paste your questions on the FID to Beck. We can find out more details.

Thanks in advance.

File: OCD Online "C-141s"

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>

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Larsen, Thurman

From: Larsen, Thurman
Sent: Thursday, June 30, 2011 9:31 AM
To: 'VanHorn, Kristen, NMENV'; 'Chavez, Carl J, EMNRD'
Subject: SEMI-ANNUAL REPORT (#2)- Passive Bio-venting Project for remediating ULSD
Attachments: COVER LETTER 070111.doc; BIOVENTING MONITORING LOG.xls; QaQc-062811.pdf; CAL 011411.pdf; CAL 012111.pdf; CAL 021711.pdf; CAL 120710.pdf; CAL 122710.pdf; QaQc-032211.pdf; QaQc-042711.pdf; QaQc-052711.pdf

RECEIVED OCD
2011 JUL 15 A 10:31

Dear Kristen and Carl,

The above attachments includes the cover letter for the semi-annual report (#2) for the passive bio-venting and remediation project of the ULSD tanks (T-115/T-116) area, the Bio-venting Monitoring Log, and Qa/Qc Data for your review. If you should have any questions regarding this report, please either call me directly or send me an e-mail.

Regards,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

6/30/2011

July 1, 2011

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
1301 Siler Road, Building B
Santa Fe, NM 87507
Attn: Kristen Van Horn

✓ New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division (OCD)
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Carl Chavez

Re: **REPORT #2:**
Semi-annual Report submittal for Passive Bioremediation (Bio-venting)
Project for remediating Ultra Low Sulfur Diesel (ULSD) in accordance with
(NSR Permit No. 0633-M8-R3, Part A.214)

Dear Ms Van Horn and Mr. Chavez:

Western Refining (Gallup Refinery) was granted the new NSR Permit 0633-M8-R3 that was signed on October 6, 2010. Under Part A.214 of the new permit, Western Refining is allowed to install a Passive Bioremediation (bio-ventilation) System for any Ultra Low Sulfur Diesel (ULSD) fuel spills that may occur at our facility. This report will include monitoring data based on nine events extending from December 7, 2010 through June 28, 2011.

Western Refining previously addressed the preliminary layout, pipe manufacturing, boring and pipe installation, and pipe survey in the letter to the Agency of March 11, 2011. Therefore, any reference to or detailed discussions of these issues will be omitted from this report unless changes or modifications are made to the bio-ventilation system such as addition or subtraction will be mentioned if required.

The Agency will find an excel workbook included as an attachment. The workbook includes the "Bio-venting Monitoring Log", graphs of "Daily Overall Average VOC Concentration", "Daily Maximum vs Daily Average", "Daily Minimum vs Daily Average", and (C(1) through C 16). A detailed discussion of each will follow below.

VOC Monitoring and Qa/Qc Procedures- As indicated in the letter to the Agency, LDAR (Leak-Detection and Repair) personnel will conduct the VOC monitoring using a Flame Ionizing Detector (FID) (TVA-1000). As previously stated, Method 21 uses a portable instrument to detect VOC leaks from sources. The regulations do not specify a

model or type of VOC instrument. However, the type of instrument does have to adhere to certain guidelines and requirements as specified in the regulations. One of the requirements for the instrument is that the detector either should be a catalytic oxidation, flame ionization, infrared absorption, or photo-ionization type of detector. Specific instrument methodology is addressed under Method 21. LDAR personnel use the proper Qa/Qc procedures for Volatile Organic Compounds (VOC) monitoring as prescribed by EPA in accordance with Method 21. This document specifies all guidelines for Qa/Qc procedures and detection of VOC leaks from process equipment. Daily Qa/Qc must be performed prior to VOC monitoring.

Monitoring Schedule- Initially VOC monitoring was conducted on a bi-monthly basis from December through January in order to establish a VOC base line. In February 2011, VOC monitoring frequency was changed from a bi-monthly to a monthly basis. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard. Western has conducted monthly VOC monitoring through June 2011 in order to collect enough historical data on the bio-venting system. Beginning on July 1, 2011, Western will commence a quarterly VOC monitoring schedule. The sampling events or monitoring will occur during October-December (4th qtr), January-March (1st qtr), April-June (2nd qtr), and July-September (3rd qtr).

Discussion of Semi-annual Monitoring Period Results- (Refer to "Bio-venting Monitoring Log", and graphs "Daily Overall Average VOC Concentration", "Average vs Maximum Concentration", "Average vs Minimum Concentration", "Average VOC Concentration by Sample Point", and individual standpipes (C (1) through 16).

1. Bio-venting Monitoring Logs vs Daily Overall Average VOC Concentration-

Nine sampling periods were conducted and included in this semi-annual report as indicated from the Bio-venting Monitoring Log. The average was calculated for each sampling event as reflected at the bottom of each column in the Bio-venting Monitoring Log. The VOC concentration over time is shown to have decreased from the initial event (December 7, 2010) to the latest sampling event (June 28, 2011). The initial overall daily average from December 7, 2010 was measured and found to be 27847 ppm. The overall daily average from June 28, 2011 was found to be 7881 ppm. If one views the graph of the "Daily Overall Average VOC Concentration", one can ascertain a definite reduction in VOC concentration over time. An exponential decrease is indicated by the "Trend Line" as shown. In order to determine the effectiveness of the Bio-venting System, it will have to be evaluated over a time dependant variable. Therefore, the daily overall concentration is expected to have a high initial concentration with an exponential decay over time. A Mathematical Model for this type of differential equation and decay function will be of the following general format: $dC/dt=k \cdot C$, where C is the VOC concentration. The coefficient (k), which is a negative value, includes the dampening coefficient for the exponential function as the generalized solution that should theoretically approach an asymptotical value over a time (t). The General Solution to

this differential equation will take the following general format: $C=C_0 \cdot e^{(kt)}$, where C is the VOC concentration (ppm) at time (t) and C_0 is the initial VOC concentration. The coefficient (k) is same coefficient as mentioned above and provides a constant for the exponential function for the general solution to the differential equation. Once again, the solution to this generalized equation should also theoretically approach an asymptotical value over a time (t).

Please note that the relative outside temperature has been plotted in conjunction with the daily overall average VOC concentration as a comparison. It appears that there is a slight correlation between the outside temperature and the VOC concentration; however, several variables may contribute to any deviation from the average. The temperature is base on the average daily outside temperature and does not reflect the gas temperature. Also, the VOC concentration is taken at the sample point near top of pipe. Vapor concentration is not uniform and will vary due to the vapor pressure of the material and due to the permeability of the soil matrix.

2. Comparative Analysis between the "Daily Overall VOC Concentration"; "Daily Maximum vs Daily Average Concentration", and "Daily Minimum vs Daily Average Concentration" graphs—

The "Daily Overall VOC Concentration" graph is divided into two distinct sections that will be analyzed separately. The graph is drawn from data collected during sampling events and put into the cells of the "Bio-venting Monitoring Log" as shown. Daily average from each column was first calculated as an initial baseline for comparative analysis in order to determine an exponential decay constant that will be eventually utilized to determine the time require to cease monitoring. The accuracy of this constant will improve as the data is collected. The overall VOC reduction is the primary goal for the Bio-venting System.

The daily maximum and daily minimum are both components of the "Bio-venting Monitoring Log" daily columns. Each day has a maximum and minimum value that is shown in each column; however, when they are averaged over the sampling time period, they tend to normalize each other through cancellation. Individually however, they are apparent.

3. "Daily Maximum vs Daily Average Concentration" graph –

If one refers to the graph designated as "Daily Maximum vs Daily Average Concentration", one finds there is a correlation between the maximum concentration values and average daily values. On the days that there is a high concentration one will find that the daily average will also increase. This is due to this high concentration value numerically increasing the daily average.

4. "Daily Minimum vs Daily Average Concentration" graph –

If one refers to the graph designated as "Daily Minimum vs Daily Average Concentration", one also finds that there is a similar correlation between the minimum

concentration values and average daily values. On the days that there is a high or low minimum concentration value one will also find a similar reflective image. These lower concentration values will tend to normalize the overall daily averages in order produce an exponential VOC concentration reduction per unit of time.

5. "Standpipe Graph (C (1) through C16)

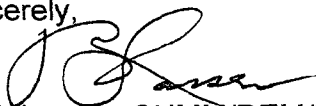
Sixteen standpipes (C(1) through C16) were monitored from December 7, 2010 through June 30, 2011 for VOC concentration. These values are indicated in the Bio-venting Monitoring Log. A graph was prepared for each standpipe in order to determine the effectiveness of each standpipe. Base on individual standpipe data, it was determined that each standpipe has been effective in reducing the amount of VOC concentration. A "Trend Line" for each standpipe clearly reflects a theoretical reduction over time.

Report Submittals- Passive bioremediation (bio-ventilation) of ultra low sulfur diesel (ULSD) for spill material in order to augment reduction of VOC concentration is a time dependent process. In February 2011, VOC monitoring frequency was changed from a bi-monthly to a monthly basis. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard. Western has conducted monthly VOC monitoring through June 2011 in order to collect enough historical data on the bio-venting system. Beginning on July 1, 2011, Western will commence a quarterly VOC monitoring schedule. The sampling events or monitoring will occur during October-December (4th qtr), January-March (1st qtr), April-June (2nd qtr), and July-September (3rd qtr).

Western Refining (Gallup Refinery) will continue to provide the Agency with semi-annual progress report on or about July 1st and January 1st based on the prior semi-annual sampling results.

If you should require any additional information or assistance in this matter, please contact me at the number listed below or via e-mail.

Sincerely,



Beck Larsen, CHMM/REM/PG
Environmental Engineer
Western Refining Southwest

Direct Line: (505) 722-0258

e-mail: Thurman.larsen@wnr.com

Cc: File

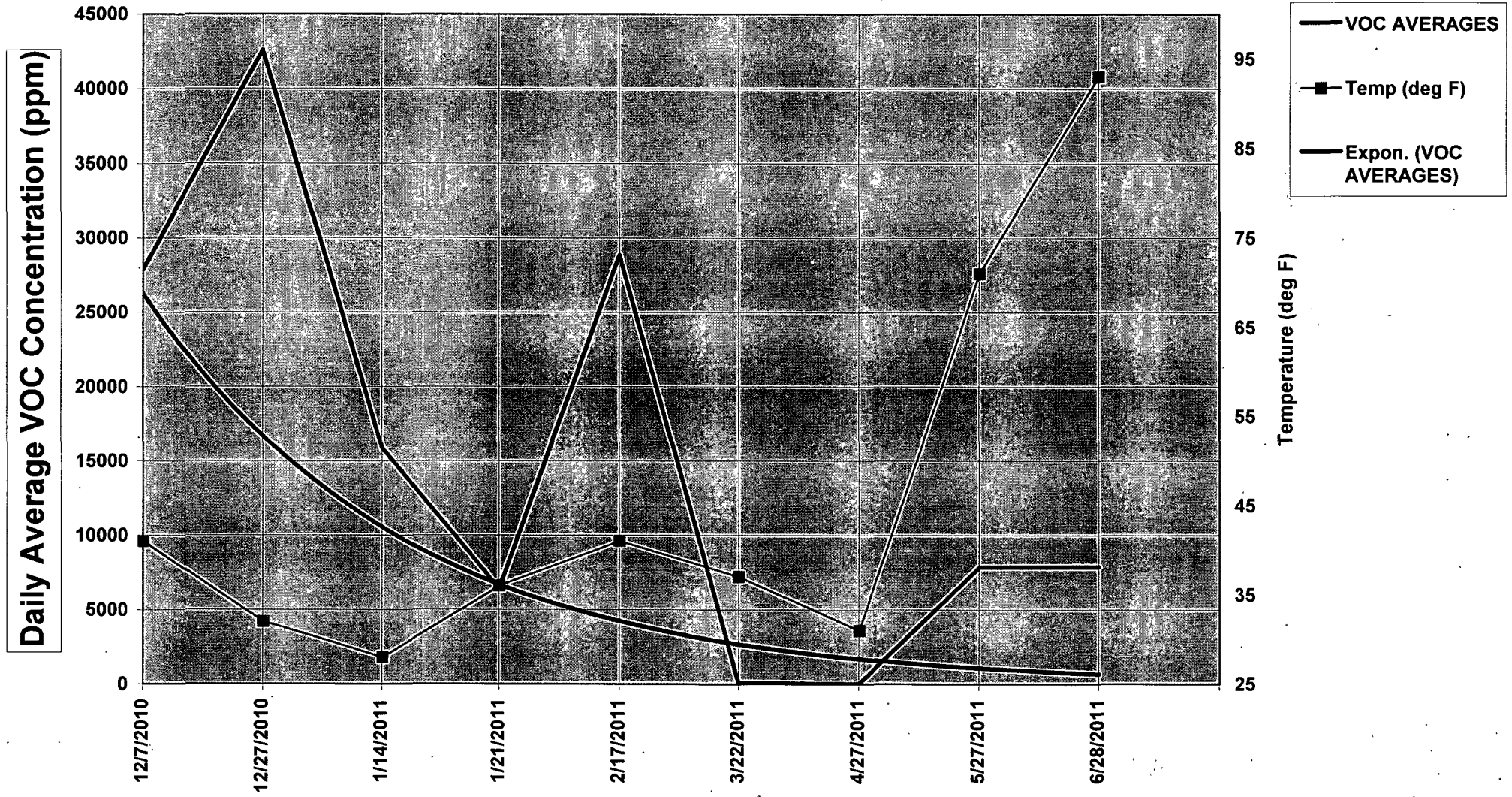
Attachment: Excel File
Qa/Qc Data

BIOVENTING Monitoring Log for T-115/T-116 Tank Area

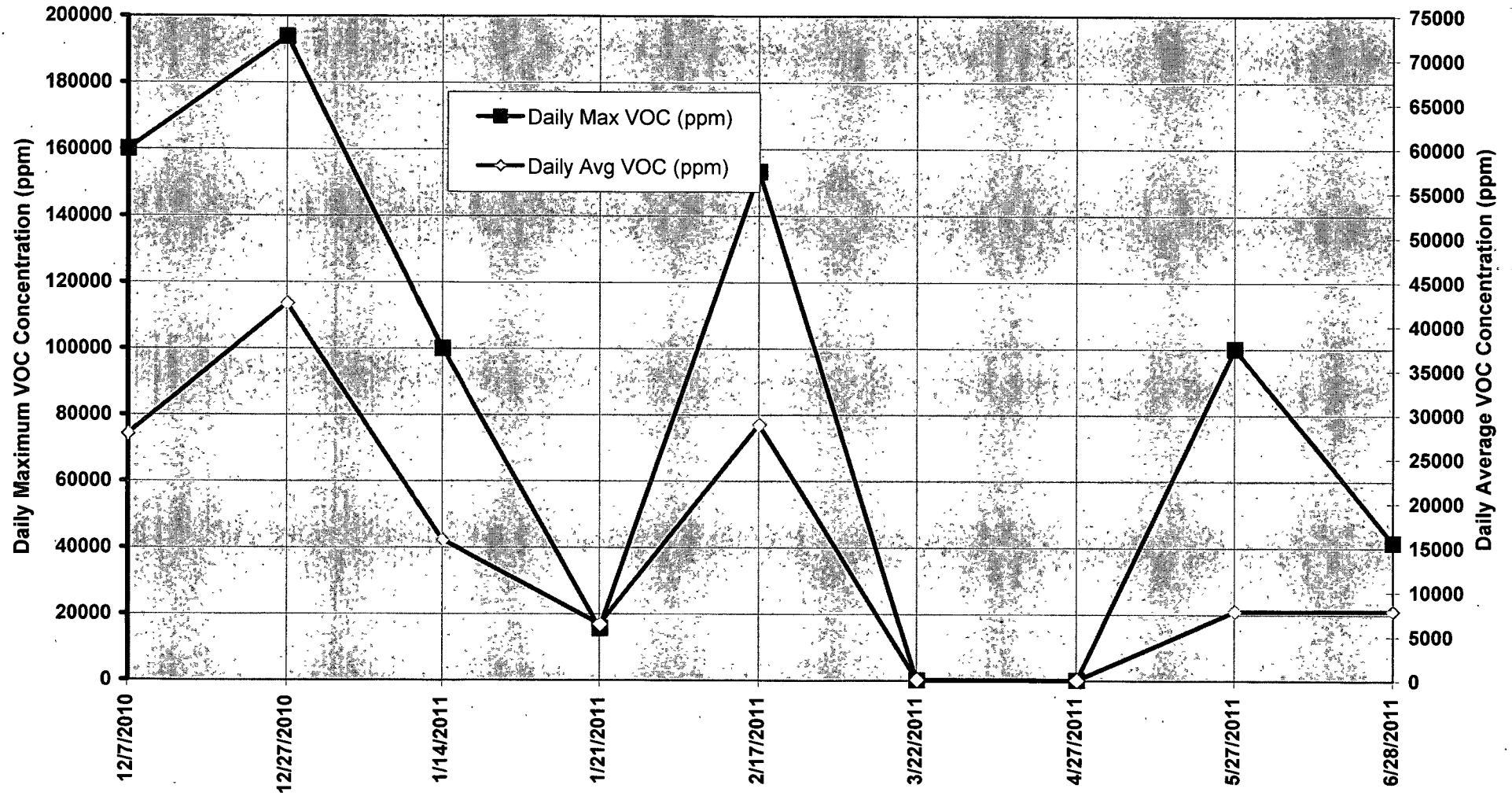
BIOVENTING Monitoring Log for T-115/T-116 Tank Area														
		READING (PPM)												
		DATE												
Map Location	Date ----> Temp (deg F)	12/7/2010 41	12/27/2010 32	1/14/2011 28	1/21/2011 36	2/17/2011 41	3/22/2011 37	4/27/2011 31	5/27/2011 71	6/28/2011 93		AVERAGE	MAXIMUM	MINIMUM
Number	Tag #													
C(1)	22723	2190	6836	2466	4982	2203	91	17	297	1571		2294.8	6836.0	17.0
2	22724	10006	9963	5444	7731	9991	96	19	992	164		4934.0	10006.0	19.0
3	22725	20031	51033	14990	12694	18993	77	43	779	8105		14082.8	51033.0	43.0
4	22726	20025	62111	100000	9916	25103	52	7	1098	41555		28874.1	100000.0	7.0
5	22727	10064	12163	4290	4014	10223	44	12	208	1623		4737.9	12163.0	12.0
6	22728	2340	2750	324	108	2119	55	8	35	193		881.3	2750.0	8.0
7	22729	4012	5006	1148	401	3954	76	8	60	27		1632.4	5006.0	8.0
8	22730	20093	67115	10066	6510	23145	72	13	17006	11087		17234.1	67115.0	13.0
9	22731	19072	57336	1583	15	17663	106	31	99999	35767		25730.2	99999.0	15.0
10	22732	70093	89037	11998	10143	74873	91	8	29	6313		29176.1	89037.0	8.0
11	22733	30031	31144	7977	9991	37603	112	59	1295	2005		13357.4	37603.0	59.0
12	22734	10056	16600	7079	15699	14002	101	38	412	579		7174.0	16600.0	38.0
13	22735	160080	193826	44112	8652	153216	100	30	66	12774		63650.7	193826.0	30.0
14	22736	8252	3406	2392	199	9116	101	39	312	996		2757.0	9116.0	39.0
15	22737	50094	72116	38849	10341	49660	107	48	3065	3318		25288.7	72116.0	48.0
16	22738	9112	986	579	123	9731	32	7	20	22		2290.2	9731.0	7.0
Daily Avg		27847	42589	15831	6345	28850	82	24	7855	7881	Average	15256.0	48933.6	23.2
Daily Max		160080	193826	100000	15699	153216	112	59	99999	41555	Maximum	63650.7	193826.0	59.0
Daily Min		2190	986	324	15	2119	32	7	20	22	Minimum	881.3	2750.0	7.0

NOTE- Coordinates for C (1)- Lat: 35 deg, 29 min, 23.82285 sec; Long: 108 deg, 25 min, 35.48146 sec

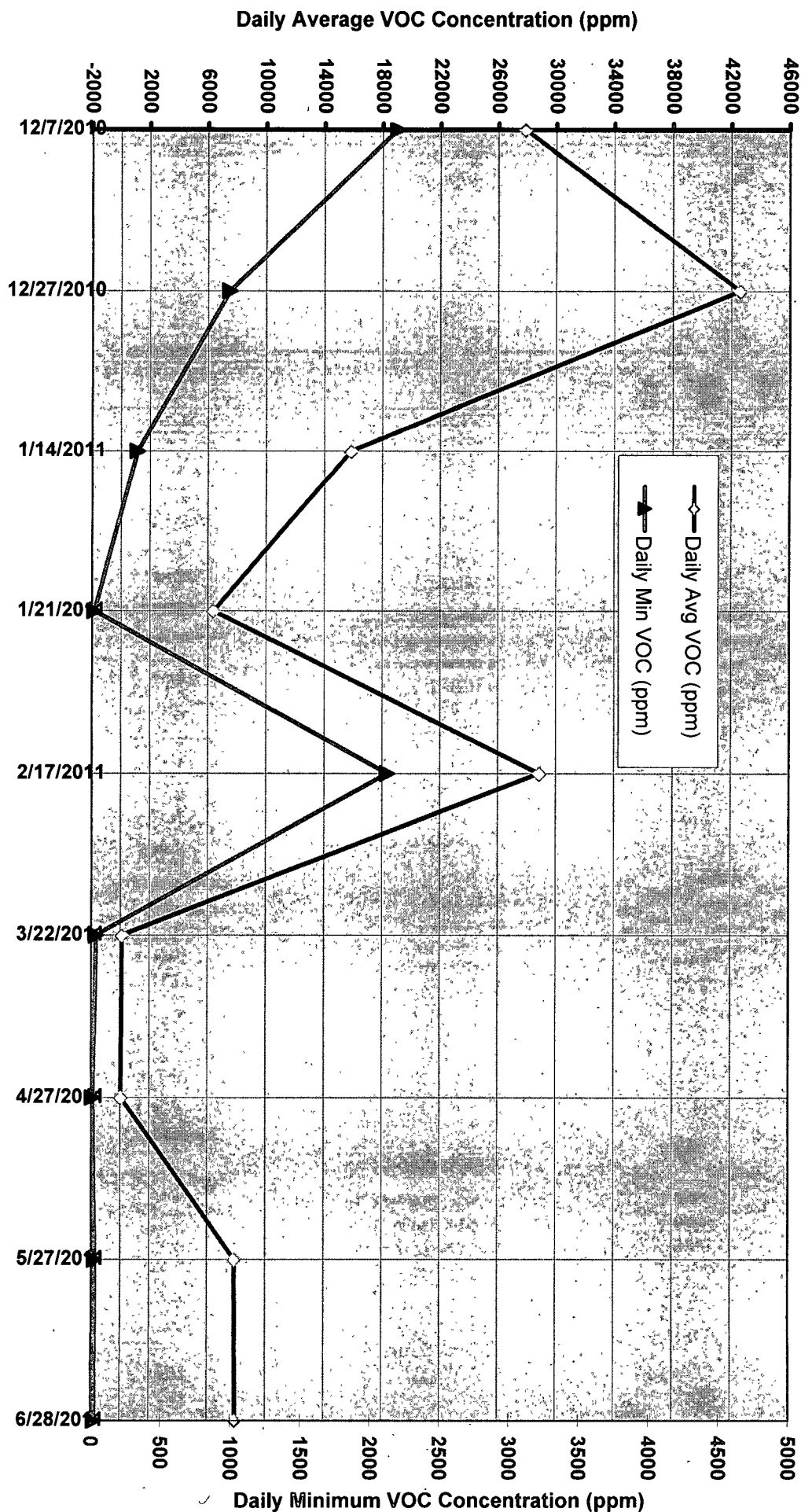
**Daily Overall Average VOC Concentration-by Daily Sampling Event
vs Temperature (deg F)**



DAILY MAXIMUM vs DAILY AVERAGE CONCENTRATION



DAILY MINIMUM vs DAILY AVERAGE CONCENTRATION



WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 6/28/11 8 44

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP.12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.983	9.913
READING #2	1.992	9.922
READING #3	1.990	9.919
ERROR PRECISION	1.97	3.10
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 8:44

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP-12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	498	9.913
READING #2	491	9.922
READING #3	495	9.919
ERROR PRECISION	1.85	3.10
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 6/28/11 12:00

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP.12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.017	9.991
READING #2	2.017	9.991
READING #3	2.017	9.991
ERROR PRECISION	3.44	3.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 6/28/11 12:00

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	482	9.991
READING #2	482	9.991
READING #3	482	9.991
ERROR PRECISION	4.37	3.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 730425604 - TVA 1000

DATE CALIBRATED 6/28/11 14:50

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	475	9.671
READING #2	475	9.671
READING #3	475	9.671
ERROR PRECISION	5.75	0.53
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 6/28/11 14:52

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.971	9.671
READING #2	1.971	9.671
READING #3	1.971	9.671
ERROR PRECISION	1.08	0.53
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY
CALIBRATION DRIFT ASSESSMENT REPORT

1008240826 - TVA-1000

DATE: 05/27/2011

<u>TIME</u>	<u>LOW GAS CONCENTRTN</u>	<u>LOW GAS AVE RDG</u>	<u>LOW GAS PRECISN</u>	<u>HIGH GAS CONCENTRTN</u>	<u>HIGH GAS AVE RDG</u>	<u>HIGH GAS PRECISN</u>	<u>NOTE</u>
8:13:04 am	1,950	1,971	1.09 %	9,620	9,722	1.06 %	CALIBRATION
8:13:25 am	504	511	1.39 %	9,620	9,722	1.06 %	
11:17.06 am	1,950	2,001	2.62 %	9,620	9,772	1.58 %	
11:17.52 am	504	525	4.17 %	9,620	9,772	1.58 %	

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 8:37

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	519	9.955
READING #2	518	9.953
READING #3	520	9.951
ERROR PRECISION	2.98	3.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/28/2011 AT 12:14:34PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 16:40

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP 12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.001	9.900
READING #2	2.001	9.900
READING #3	2.001	9.900
ERROR PRECISION	2.62	2.91
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/28/2011 AT 12:14:34PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED 4/27/11 16:00

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	503	9.900
READING #2	503	9.900
READING #3	503	9.900
ERROR PRECISION	0.20	2.91
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 9:11

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.401
READING #2	1.898	9.409
READING #3	1.904	9.400
ERROR PRECISION	2.55	2.25
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 9:18

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	520	9.401
READING #2	519	9.409
READING #3	517	9.400
ERROR PRECISION	2.91	2.25
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 12:55

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PC	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.941	9.490
READING #2	1.941	9.490
READING #3	1.941	9.490
ERROR PRECISION	0.46	1.35
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED 3/22/11 12:55

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.490
READING #2	523	9.490
READING #3	523	9.490
ERROR PRECISION	3.77	1.35
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT. (<=10%)

PRINTED ON 4/27/2011 AT 10:48 14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 9:44

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08-PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.902	9.499
READING #2	1.908	9.495
READING #3	1.907	9.491
ERROR PRECISION	2.27	1.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 9:46

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	504	9.499
READING #2	508	9.495
READING #3	509	9.491
ERROR PRECISION	0.60	1.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 11:48

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.919	9.513
READING #2	1.919	9.513
READING #3	1.919	9.513
ERROR PRECISION	1.59	1.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 11:49

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.513
READING #2	511	9.513
READING #3	511	9.513
ERROR PRECISION	1.39	1.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 16:13

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.406
READING #2	1.899	9.406
READING #3	1.899	9.406
ERROR PRECISION	2.62	2.22
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 2/17/11 16:13

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	500	9.406
READING #2	500	9.406
READING #3	500	9.406
ERROR PRECISION	0.79	2.22
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 9:46

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.950	9.597
READING #2	1.949	9.591
READING #3	1.952	9.593
ERROR PRECISION	0.02	0.27
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4 08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 2/17/11 9:47

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	501	9.597
READING #2	499	9.591
READING #3	498	9.593
ERROR PRECISION	0.93	0.27
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 11:49

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	506	9.581
READING #2	506	9.581
READING #3	506	9.581
ERROR PRECISION	0.40	0.41
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED 2/17/11 11:50

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.959	9.581
READING #2	1.959	9.581
READING #3	1.959	9.581
ERROR PRECISION	0.46	0.41
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08.59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 16:13

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP 12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.980	9.613
READING #2	1.980	9.613
READING #3	1.980	9.613
ERROR PRECISION	1.54	0.07
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 2/17/11 16:14

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.613
READING #2	511	9.613
READING #3	511	9.613
ERROR PRECISION	1.39	0.07
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 9:14

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.895	9.541
READING #2	1.896	9.530
READING #3	1.898	9.533
ERROR PRECISION	2.75	0.89
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR-PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED 1/21/11 9:15

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	515	9.541
READING #2	511	9.530
READING #3	512	9.528
ERROR PRECISION	1.72	0.90
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/21/11 12:47

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX// LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.518
READING #2	1.899	9.518
READING #3	1.899	9.518
ERROR PRECISION	2.62	1.06
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/21/11 12:48

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	519	9.518
READING #2	519	9.518
READING #3	519	9.518
ERROR PRECISION	2.98	1.06
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/21/11 16:38

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.905	9.525
READING #2	1.905	9.525
READING #3	1.905	9.525
ERROR PRECISION	2.31	0.99
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/21/11 16.39

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	522	9.525
READING #2	522	9.525
READING #3	552	9.525
ERROR PRECISION	5.56	0.99
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 1/21/11 9:19

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.930	9.390
READING #2	1.934	9.392
READING #3	1.939	9.387
ERROR PRECISION	0.80	2.39
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED 1/21/11 9:19

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	499	9.390
READING #2	498	9.392
READING #3	499	9.387
ERROR PRECISION	1.06	2.39
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 1/21/11 12 48

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.940	9.395
READING #2	1.940	9.395
READING #3	1.940	9.395
ERROR PRECISION	0.51	2.34
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9 31.58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED. 1/21/11 12:49

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	491	9.395
READING #2	491	9.395
READING #3	491	9.395
ERROR PRECISION	2.58	2.34
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 730425604 - TVA 1000

DATE CALIBRATED 1/21/11 16:39

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.945	9.399
READING #2	1.945	9.399
READING #3	1.945	9.399
ERROR PRECISION	0.26	2.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 16:40

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	489	9.399
READING #2	489	9.399
READING #3	489	9.399
ERROR PRECISION	2.98	2.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 10:32

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.940	9.720
READING #2	1.943	9.716
READING #3	1.943	9.715
ERROR PRECISION	0.41	1.01
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 10:32

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	507	9.720
READING #2	506	9.716
READING #3	501	9.715
ERROR PRECISION	0.13	1.01
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 13.06

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.980	9.920
READING #2	1.980	9.920
READING #3	1.980	9.920
ERROR PRECISION	1.54	3.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 13:06

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO #C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	501	9.920
READING #2	501	9.920
READING #3	501	9.920
ERROR PRECISION	0.60	3.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 15:00

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.955	9.631
READING #2	1.955	9.631
READING #3	1.955	9.631
ERROR PRECISION	0.26	0.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED 1/14/11 15:00

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	496	9.631
READING #2	496	9.631
READING #3	496	9.631
ERROR PRECISION	1.59	0.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 12/27/10 9:26

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP 12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.957	9.699
READING #2	1.953	9.703
READING #3	1.959	9.709
ERROR PRECISION	0.32	0.87
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 12/27/10 9.27

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.699
READING #2	507	9.703
READING #3	508	9.709
ERROR PRECISION	0.93	0.87
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 12/27/10 12:30

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP.12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.968	9.711
READING #2	1.968	9.711
READING #3	1.968	9.711
ERROR PRECISION	0.92	0.95
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 12/27/10 12:30

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	517	9.711
READING #2	517	9.711
READING #3	517	9.711
ERROR PRECISION	2.58	0.95
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 15:48

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP 12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.974	9.718
READING #2	1.974	9.718
READING #3	1.974	9.718
ERROR PRECISION	1.23	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 15:49

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.718
READING #2	523	9.718
READING #3	523	9.718
ERROR PRECISION	3.77	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 9:27

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.929	9.506
READING #2	1.923	9.521
READING #3	1.913	9.509
ERROR PRECISION	1.45	1.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 1008240833 - TVA-1000

DATE CALIBRATED 12/27/10 9 28

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	499	9.506
READING #2	501	9.521
READING #3	503	9.509
ERROR PRECISION	0.60	1.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 12:30

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.931	9.553
READING #2	1.931	9.553
READING #3	1.931	9.553
ERROR PRECISION	0.97	0.70
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 1008240833 - TVA-1000

DATE CALIBRATED 12/27/10 12:30

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	508	9.553
READING #2	508	9.553
READING #3	508	9.553
ERROR PRECISION	0.79	0.70
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT ($\leq 10\%$)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED. 12/27/10 15:49

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.938	9.564
READING #2	1.938	9.564
READING #3	1.938	9.564
ERROR PRECISION	0.62	0.58
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 1008240833 - TVA-1000

DATE CALIBRATED 12/27/10 15:49

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.718
READING #2	523	9.718
READING #3	523	9.718
ERROR PRECISION	3.77	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0712122196 - TVA1000

DATE CALIBRATED 12/7/10 8:58

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP 12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0.

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.963	9.634
READING #2	1.967	9.631
READING #3	1.952	9.621
ERROR PRECISION	0.55	0.09
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0712122196 - TVA1000

DATE CALIBRATED 12/7/10 8:58

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	509	9.634
READING #2	510	9.631
READING #3	515	9.621
ERROR PRECISION	1.46	0.09
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0712122196 - TVA1000

DATE CALIBRATED. 12/7/10 12 00

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.015	9.901
READING #2	2.015	9.901
READING #3	2.015	9.901
ERROR PRECISION	3.33	2.92
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39:58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9,620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	520	9.901
READING #2	520	9.901
READING #3	520	9.901
ERROR PRECISION	3.17	2.92
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0712122196 - TVA1000

DATE CALIBRATED. 12/7/10 15 53

TECHNICIAN. 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.999	9.816
READING #2	1.999	9.816
READING #3	1.999	9.816
ERROR PRECISION	2.51	2.04
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED 12/7/10 15:53

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	518	9.816
READING #2	518	9.816
READING #3	518	9.816
ERROR PRECISION	2.78	2.04
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39 58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED. 12/7/10 9:03

TECHNICIAN. 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.977	9.668
READING #2	1.971	9.663
READING #3	1.973	9.661
ERROR PRECISION	1.21	0.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED 12/7/10 9:04

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	516	9.668
READING #2	517	9.663
READING #3	516	9.661
ERROR PRECISION	2.45	0.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP-12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.996	9.769
READING #2	1.996	9.769
READING #3	1.996	9.769
ERROR PRECISION	2.36	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 12.00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	527	9.769
READING #2	527	9.769
READING #3	527	9.769
ERROR PRECISION	4.56	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 15:54

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.005	9.769
READING #2	2.005	9.769
READING #3	2.005	9.769
ERROR PRECISION	2.82	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED 12/7/10 15:55

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	535	9.799
READING #2	535	9.799
READING #3	535	9.799
ERROR PRECISION	6.15	1.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Thursday, June 30, 2011 9:31 AM
To: VanHorn, Kristen, NMENV; Chavez, Carl J, EMNRD
Subject: SEMI-ANNUAL REPORT (#2)- Passive Bio-venting Project for remediating ULSD
Attachments: COVER LETTER 070111.doc; BIOVENTING MONITORING LOG.xls; QaQc-062811.pdf; CAL 011411.pdf; CAL 012111.pdf; CAL 021711.pdf; CAL 120710.pdf; CAL 122710.pdf; QaQc-032211.pdf; QaQc-042711.pdf; QaQc-052711.pdf

Dear Kristen and Carl,

The above attachments includes the cover letter for the semi-annual report (#2) for the passive bio-venting and remediation project of the ULSD tanks (T-115/T-116) area, the Bio-venting Monitoring Log, and Qa/Qc Data for your review. If you should have any questions regarding this report, please either call me directly or send me an e-mail.

Regards,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

July 1, 2011

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
1301 Siler Road, Building B
Santa Fe, NM 87507
Attn: Kristen Van Horn

New Mexico Energy, Minerals and Natural Resources
Oil Conservation Division (OCD)
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Mr. Carl Chavez

Re: **REPORT #2:**
Semi-annual Report submittal for Passive Bioremediation (Bio-venting)
Project for remediating Ultra Low Sulfur Diesel (ULSD) in accordance with
(NSR Permit No. 0633-M8-R3, Part A.214)

Dear Ms Van Horn and Mr. Chavez:

Western Refining (Gallup Refinery) was granted the new NSR Permit 0633-M8-R3 that was signed on October 6, 2010. Under Part A.214 of the new permit, Western Refining is allowed to install a Passive Bioremediation (bio-ventilation) System for any Ultra Low Sulfur Diesel (ULSD) fuel spills that may occur at our facility. This report will include monitoring data based on nine events extending from December 7, 2010 through June 28, 2011.

Western Refining previously addressed the preliminary layout, pipe manufacturing, boring and pipe installation, and pipe survey in the letter to the Agency of March 11, 2011. Therefore, any reference to or detailed discussions of these issues will be omitted from this report unless changes or modifications are made to the bio-ventilation system such as addition or subtraction will be mentioned if required.

The Agency will find an excel workbook included as an attachment. The workbook includes the "Bio-venting Monitoring Log", graphs of "Daily Overall Average VOC Concentration", "Daily Maximum vs Daily Average", "Daily Minimum vs Daily Average", and (C(1) through C 16). A detailed discussion of each will follow below.

VOC Monitoring and Qa/Qc Procedures- As indicated in the letter to the Agency, LDAR (Leak-Detection and Repair) personnel will conduct the VOC monitoring using a Flame Ionizing Detector (FID) (TVA-1000). As previously stated, Method 21 uses a portable instrument to detect VOC leaks from sources. The regulations do not specify a

model or type of VOC instrument. However, the type of instrument does have to adhere to certain guidelines and requirements as specified in the regulations. One of the requirements for the instrument is that the detector either should be a catalytic oxidation, flame ionization, infrared absorption, or photo-ionization type of detector. Specific instrument methodology is addressed under Method 21. LDAR personnel use the proper Qa/Qc procedures for Volatile Organic Compounds (VOC) monitoring as prescribed by EPA in accordance with Method 21. This document specifies all guidelines for Qa/Qc procedures and detection of VOC leaks from process equipment. Daily Qa/Qc must be performed prior to VOC monitoring.

Monitoring Schedule- Initially VOC monitoring was conducted on a bi-monthly basis from December through January in order to establish a VOC base line. In February 2011, VOC monitoring frequency was changed from a bi-monthly to a monthly basis. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard. Western has conducted monthly VOC monitoring through June 2011 in order to collect enough historical data on the bio-venting system. Beginning on July 1, 2011, Western will commence a quarterly VOC monitoring schedule. The sampling events or monitoring will occur during October-December (4th qtr), January-March (1st qtr), April-June (2nd qtr), and July-September (3rd qtr).

Discussion of Semi-annual Monitoring Period Results- (Refer to "Bio-venting Monitoring Log", and graphs "Daily Overall Average VOC Concentration", "Average vs Maximum Concentration", "Average vs Minimum Concentration", "Average VOC Concentration by Sample Point", and individual standpipes (C (1) through 16).

1. Bio-venting Monitoring Logs vs Daily Overall Average VOC Concentration-

Nine sampling periods were conducted and included in this semi-annual report as indicated from the Bio-venting Monitoring Log. The average was calculated for each sampling event as reflected at the bottom of each column in the Bio-venting Monitoring Log. The VOC concentration over time is shown to have decreased from the initial event (December 7, 2010) to the latest sampling event (June 28, 2011). The initial overall daily average from December 7, 2010 was measured and found to be 27847 ppm. The overall daily average from June 28, 2011 was found to be 7881 ppm. If one views the graph of the "Daily Overall Average VOC Concentration", one can ascertain a definite reduction in VOC concentration over time. An exponential decrease is indicated by the "Trend Line" as shown. In order to determine the effectiveness of the Bio-venting System, it will have to be evaluated over a time dependant variable. Therefore, the daily overall concentration is expected to have a high initial concentration with an exponential decay over time. A Mathematical Model for this type of differential equation and decay function will be of the following general format: $dC/dt=k \cdot C$, where C is the VOC concentration. The coefficient (k), which is a negative value, includes the dampening coefficient for the exponential function as the generalized solution that should theoretically approach an asymptotical value over a time (t). The General Solution to

this differential equation will take the following general format: $C=C_0 \cdot e^{(kt)}$, where C is the VOC concentration (ppm) at time (t) and C_0 is the initial VOC concentration. The coefficient (k) is same coefficient as mentioned above and provides a constant for the exponential function for the general solution to the differential equation. Once again, the solution to this generalized equation should also theoretically approach an asymptotical value over a time (t).

Please note that the relative outside temperature has been plotted in conjunction with the daily overall average VOC concentration as a comparison. It appears that there is a slight correlation between the outside temperature and the VOC concentration; however, several variables may contribute to any deviation from the average. The temperature is base on the average daily outside temperature and does not reflect the gas temperature. Also, the VOC concentration is taken at the sample point near top of pipe. Vapor concentration is not uniform and will vary due to the vapor pressure of the material and due to the permeability of the soil matrix.

2. Comparative Analysis between the “Daily Overall VOC Concentration”; “Daily Maximum vs Daily Average Concentration”, and “Daily Minimum vs Daily Average Concentration” graphs–

The “Daily Overall VOC Concentration” graph is divided into two distinct sections that will be analyzed separately. The graph is drawn from data collected during sampling events and put into the cells of the “Bio-venting Monitoring Log” as shown. Daily average from each column was first calculated as an initial baseline for comparative analysis in order to determine an exponential decay constant that will be eventually utilized to determine the time require to cease monitoring. The accuracy of this constant will improve as the data is collected. The overall VOC reduction is the primary goal for the Bio-venting System.

The daily maximum and daily minimum are both components of the “Bio-venting Monitoring Log” daily columns. Each day has a maximum and minimum value that is shown in each column; however, when they are averaged over the sampling time period, they tend to normalize each other through cancellation. Individually however, they are apparent.

3. “Daily Maximum vs Daily Average Concentration” graph –

If one refers to the graph designated as “Daily Maximum vs Daily Average Concentration”, one finds there is a correlation between the maximum concentration values and average daily values. On the days that there is a high concentration one will find that the daily average will also increase. This is due to this high concentration value numerically increasing the daily average.

4. “Daily Minimum vs Daily Average Concentration” graph –

If one refers to the graph designated as “Daily Minimum vs Daily Average Concentration”, one also finds that there is a similar correlation between the minimum

concentration values and average daily values. On the days that there is a high or low minimum concentration value one will also find a similar reflective image. These lower concentration values will tend to normalize the overall daily averages in order produce an exponential VOC concentration reduction per unit of time.

5. "Standpipe Graph (C (1) through C16)

Sixteen standpipes (C(1) through C16) were monitored from December 7, 2010 through June 30, 2011 for VOC concentration. These values are indicated in the Bio-venting Monitoring Log. A graph was prepared for each standpipe in order to determine the effectiveness of each standpipe. Base on individual standpipe data, it was determined that each standpipe has been effective in reducing the amount of VOC concentration. A "Trend Line" for each standpipe clearly reflects a theoretical reduction over time.

Report Submittals- Passive bioremediation (bio-ventilation) of ultra low sulfur diesel (ULSD) for spill material in order to augment reduction of VOC concentration is a time dependent process. In February 2011, VOC monitoring frequency was changed from a bi-monthly to a monthly basis. The objective of the bio-ventilation system is to decrease the average VOC concentration over time to a satisfactory standard. Western has conducted monthly VOC monitoring through June 2011 in order to collect enough historical data on the bio-venting system. Beginning on July 1, 2011, Western will commence a quarterly VOC monitoring schedule. The sampling events or monitoring will occur during October-December (4th qtr), January-March (1st qtr), April-June (2nd qtr), and July-September (3rd qtr).

Western Refining (Gallup Refinery) will continue to provide the Agency with semi-annual progress report on or about July 1st and January 1st based on the prior semi-annual sampling results.

If you should require any additional information or assistance in this matter, please contact me at the number listed below or via e-mail.

Sincerely,

Beck Larsen, CHMM/REM/PG
Environmental Engineer
Western Refining Southwest

Direct Line: (505) 722-0258
e-mail: Thurman.larsen@wnr.com

Cc: File
Attachment: Excel File
Qa/Qc Data

BIOVENTING Monitoring Log for T-115/T-116 Tank Area														
		READING (PPM)												
		DATE												
Map Location	Date ---> Temp (deg F)	12/7/2010 41	12/27/2010 32	1/14/2011 28	1/21/2011 36	2/17/2011 41	3/22/2011 37	4/27/2011 31	5/27/2011 71	6/28/2011 93		AVERAGE	MAXIMUM	MINIMUM
Number	Tag #													
C(1)	22723	2190	6836	2466	4982	2203	91	17	297	1571		2294.8	6836.0	17.0
2	22724	10006	9963	5444	7731	9991	96	19	992	164		4934.0	10006.0	19.0
3	22725	20031	51033	14990	12694	18993	77	43	779	8105		14082.8	51033.0	43.0
4	22726	20025	62111	100000	9916	25103	52	7	1098	41555		28874.1	100000.0	7.0
5	22727	10064	12163	4290	4014	10223	44	12	208	1623		4737.9	12163.0	12.0
6	22728	2340	2750	324	108	2119	55	8	35	193		881.3	2750.0	8.0
7	22729	4012	5006	1148	401	3954	76	8	60	27		1632.4	5006.0	8.0
8	22730	20093	67115	10066	6510	23145	72	13	17006	11087		17234.1	67115.0	13.0
9	22731	19072	57336	1583	15	17663	106	31	99999	35767		25730.2	99999.0	15.0
10	22732	70093	89037	11998	10143	74873	91	8	29	6313		29176.1	89037.0	8.0
11	22733	30031	31144	7977	9991	37603	112	59	1295	2005		13357.4	37603.0	59.0
12	22734	10056	16600	7079	15699	14002	101	38	412	579		7174.0	16600.0	38.0
13	22735	160080	193826	44112	8652	153216	100	30	66	12774		63650.7	193826.0	30.0
14	22736	8252	3406	2392	199	9116	101	39	312	996		2757.0	9116.0	39.0
15	22737	50094	72116	38849	10341	49660	107	48	3065	3318		25288.7	72116.0	48.0
16	22738	9112	986	579	123	9731	32	7	20	22		2290.2	9731.0	7.0
Daily Avg		27847	42589	15831	6345	28850	82	24	7855	7881 Average		15256.0	48933.6	23.2
Daily Max		160080	193826	100000	15699	153216	112	59	99999	41555 Maximum		63650.7	193826.0	59.0
Daily Min		2190	986	324	15	2119	32	7	20	22 Minimum		881.3	2750.0	7.0

NOTE- Coordinates for C (1)- Lat: 35 deg, 29 min, 23.82285 sec; Long: 108 deg, 25 min, 35.48146 sec

BIOVENTING Monitoring Log for T-115/T-116 Tank Area

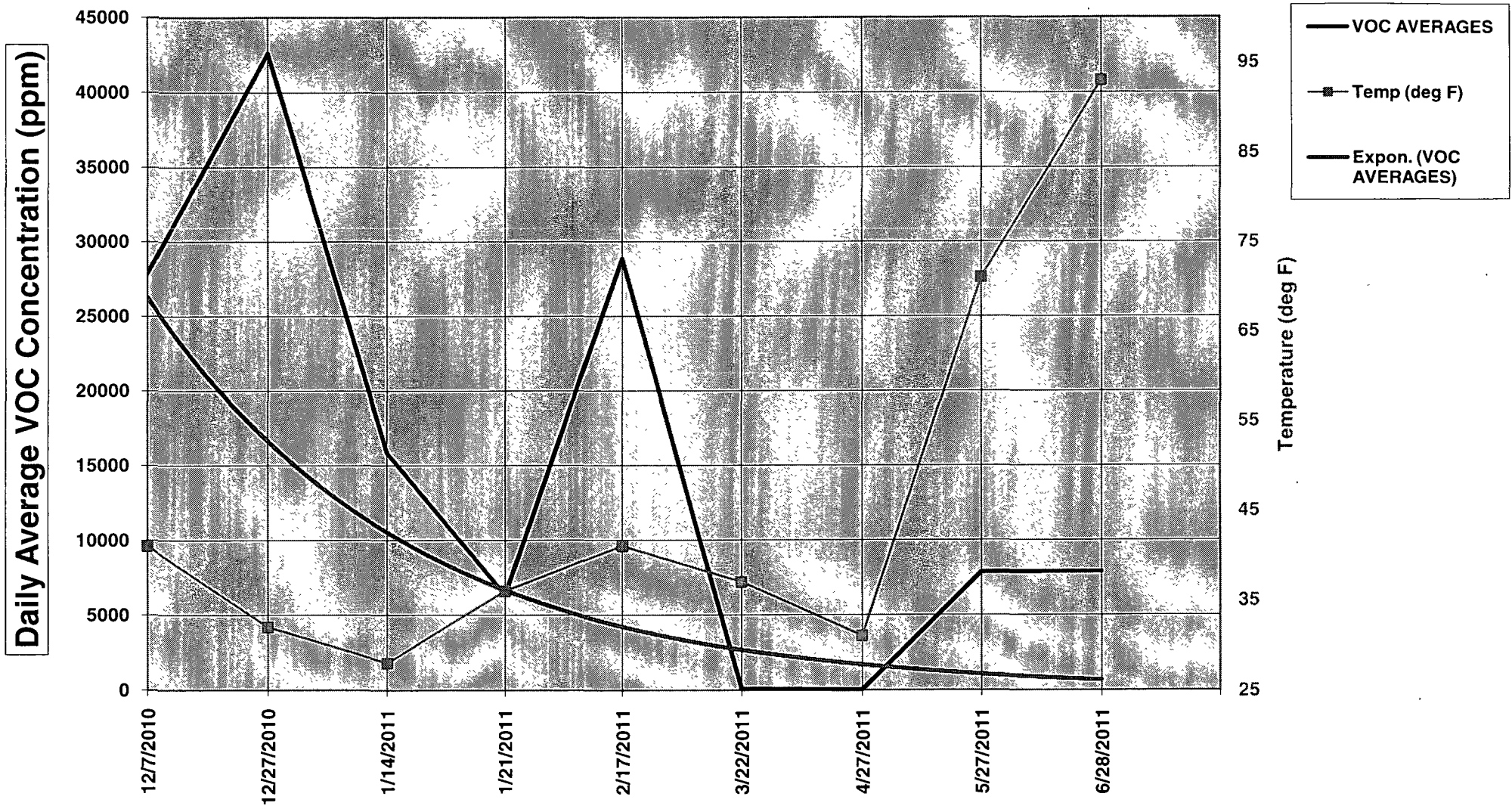
READING (PPM)

DATE

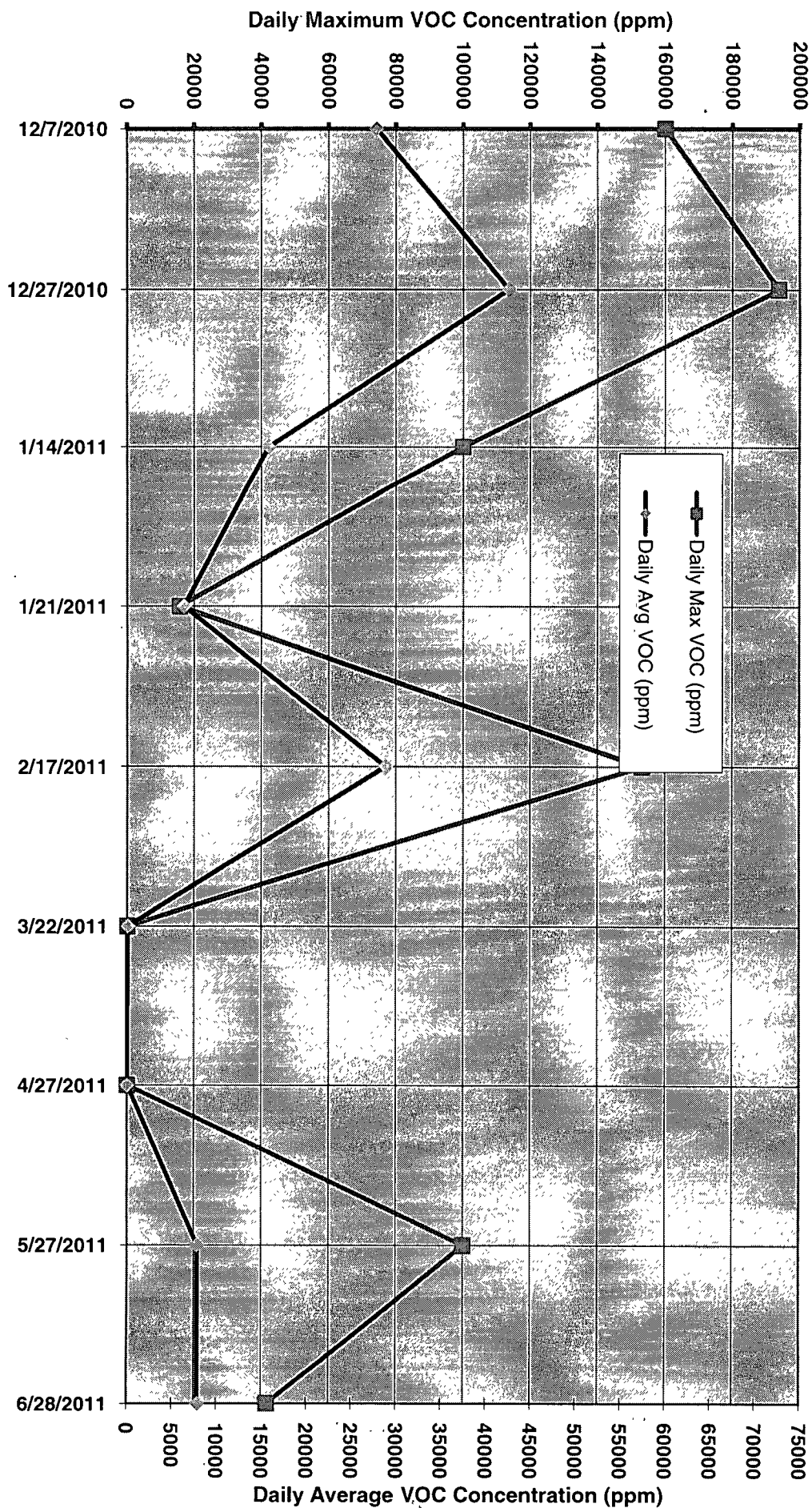
Map Location	Date ---->	12/7/2010	12/27/2010	1/14/2011	1/21/2011	2/17/2011	3/22/2011	4/27/2011	5/27/2011	6/28/2011		AVERAGE	MAXIMUM	MINIMUM
	Temp (deg F)	41	32	28	36	41	37	31	71	93				
Number	Tag #													
C(1)	22723	2190	6836	2466	4982	2203	91	17	297	1571		2294.8	6836.0	17.0
2	22724	10006	9963	5444	7731	9991	96	19	992	164		4934.0	10006.0	19.0
3	22725	20031	51033	14990	12694	18993	77	43	779	8105		14082.8	51033.0	43.0
4	22726	20025	62111	100000	9916	25103	52	7	1098	41555		28874.1	100000.0	7.0
5	22727	10064	12163	4290	4014	10223	44	12	208	1623		4737.9	12163.0	12.0
6	22728	2340	2750	324	108	2119	55	8	35	193		881.3	2750.0	8.0
7	22729	4012	5006	1148	401	3954	76	8	60	27		1632.4	5006.0	8.0
8	22730	20093	67115	10066	6510	23145	72	13	17006	11087		17234.1	67115.0	13.0
9	22731	19072	57336	1583	15	17663	106	31	99999	35767		25730.2	99999.0	15.0
10	22732	70093	89037	11998	10143	74873	91	8	29	6313		29176.1	89037.0	8.0
11	22733	30031	31144	7977	9991	37603	112	59	1295	2005		13357.4	37603.0	59.0
12	22734	10056	16600	7079	15699	14002	101	38	412	579		7174.0	16600.0	38.0
13	22735	160080	193826	44112	8652	153216	100	30	66	12774		63650.7	193826.0	30.0
14	22736	8252	3406	2392	199	9116	101	39	312	996		2757.0	9116.0	39.0
15	22737	50094	72116	38849	10341	49660	107	48	3065	3318		25288.7	72116.0	48.0
16	22738	9112	986	579	123	9731	32	7	20	22		2290.2	9731.0	7.0
Daily Avg		27847	42589	15831	6345	28850	82	24	7855	7881	Average	15256.0	48933.6	23.2
Daily Max		160080	193826	100000	15699	153216	112	59	99999	41555	Maximum	63650.7	193826.0	59.0
Daily Min		2190	986	324	15	2119	32	7	20	22	Minimum	881.3	2750.0	7.0

NOTE- Coordinates for C (1)- Lat: 35 deg, 29 min, 23.82285 sec; Long: 108 deg, 25 min, 35.48146 sec

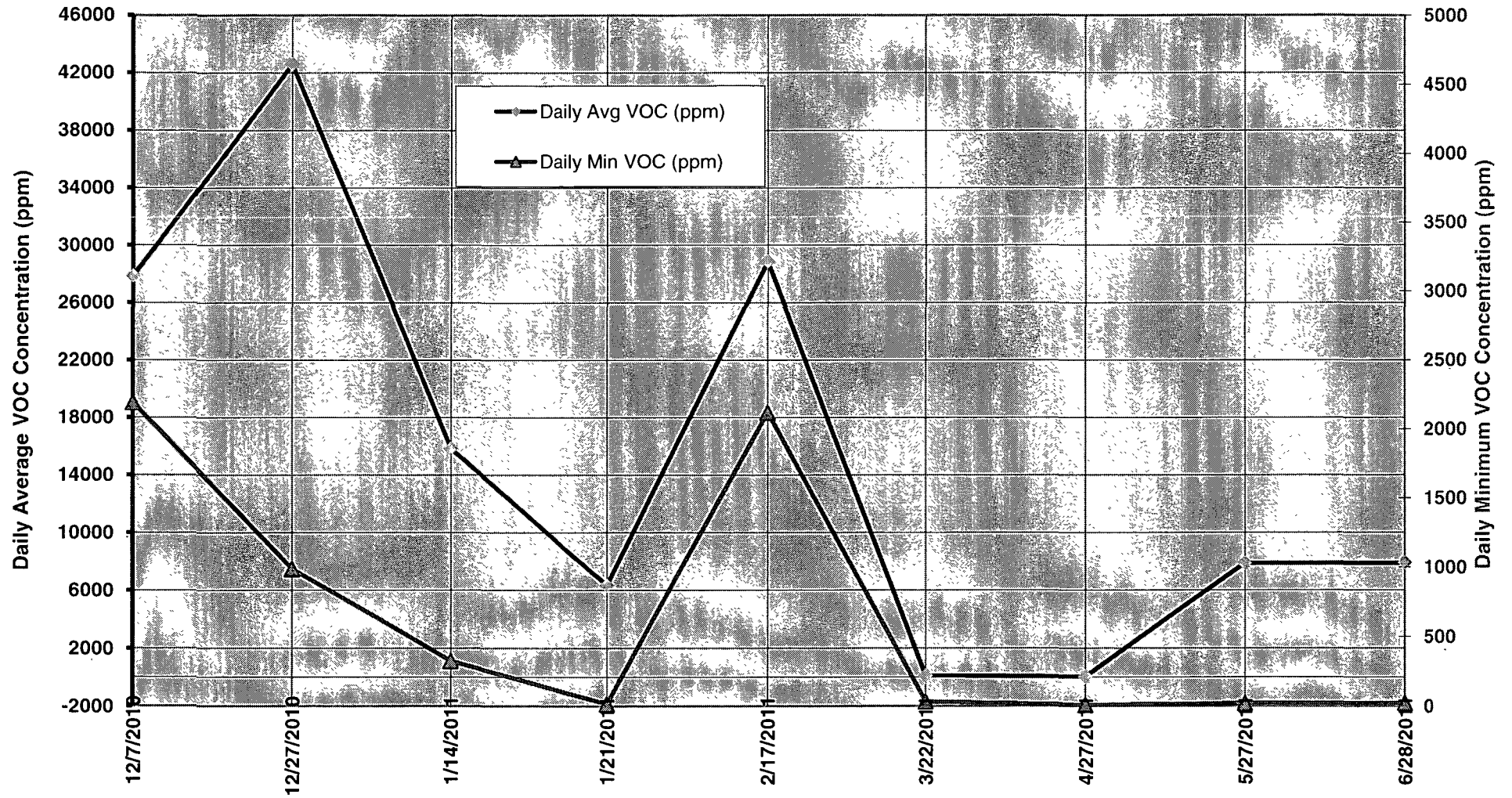
**Daily Overall Average VOC Concentration-by Daily Sampling Event
vs Temperature (deg F)**



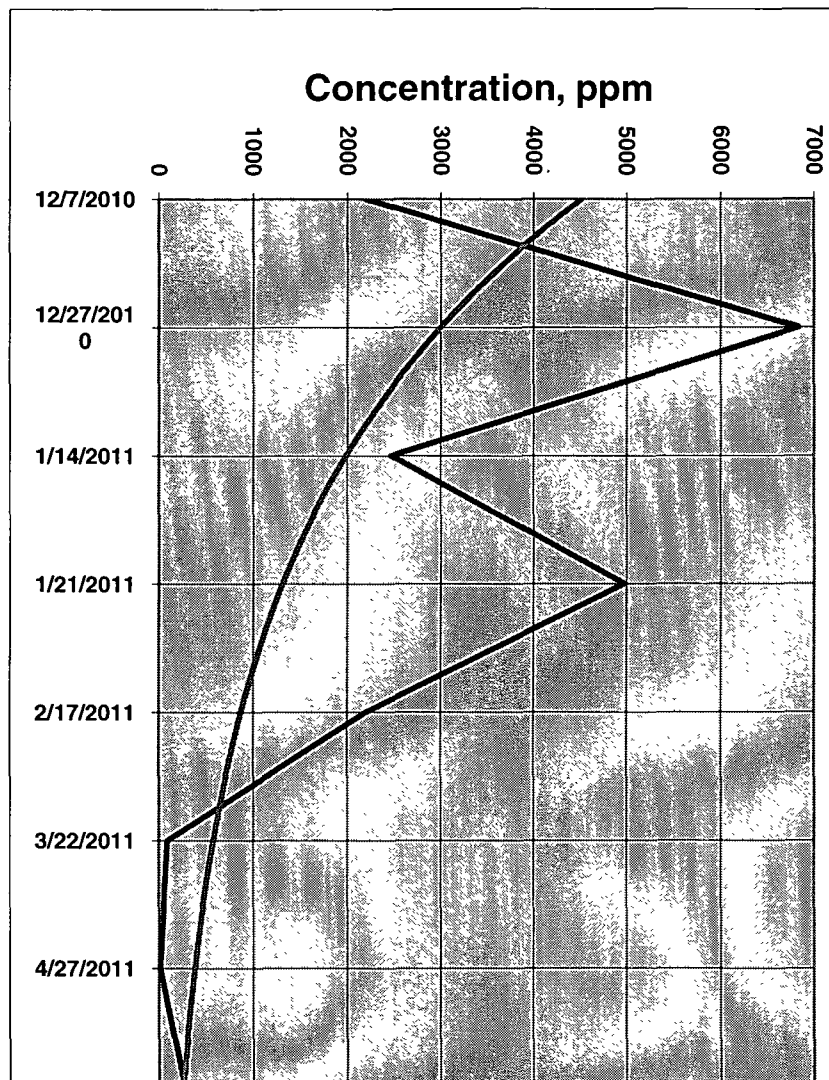
DAILY MAXIMUM vs DAILY AVERAGE CONCENTRATION

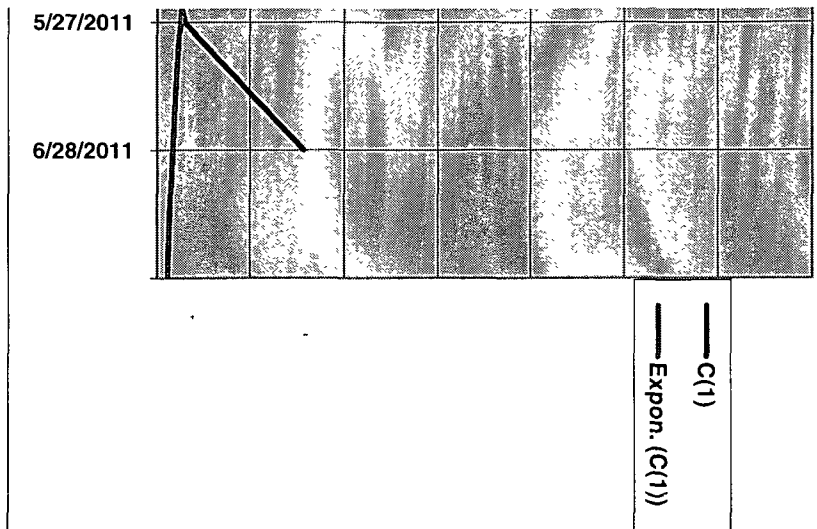


DAILY MINIMUM vs DAILY AVERAGE CONCENTRATION

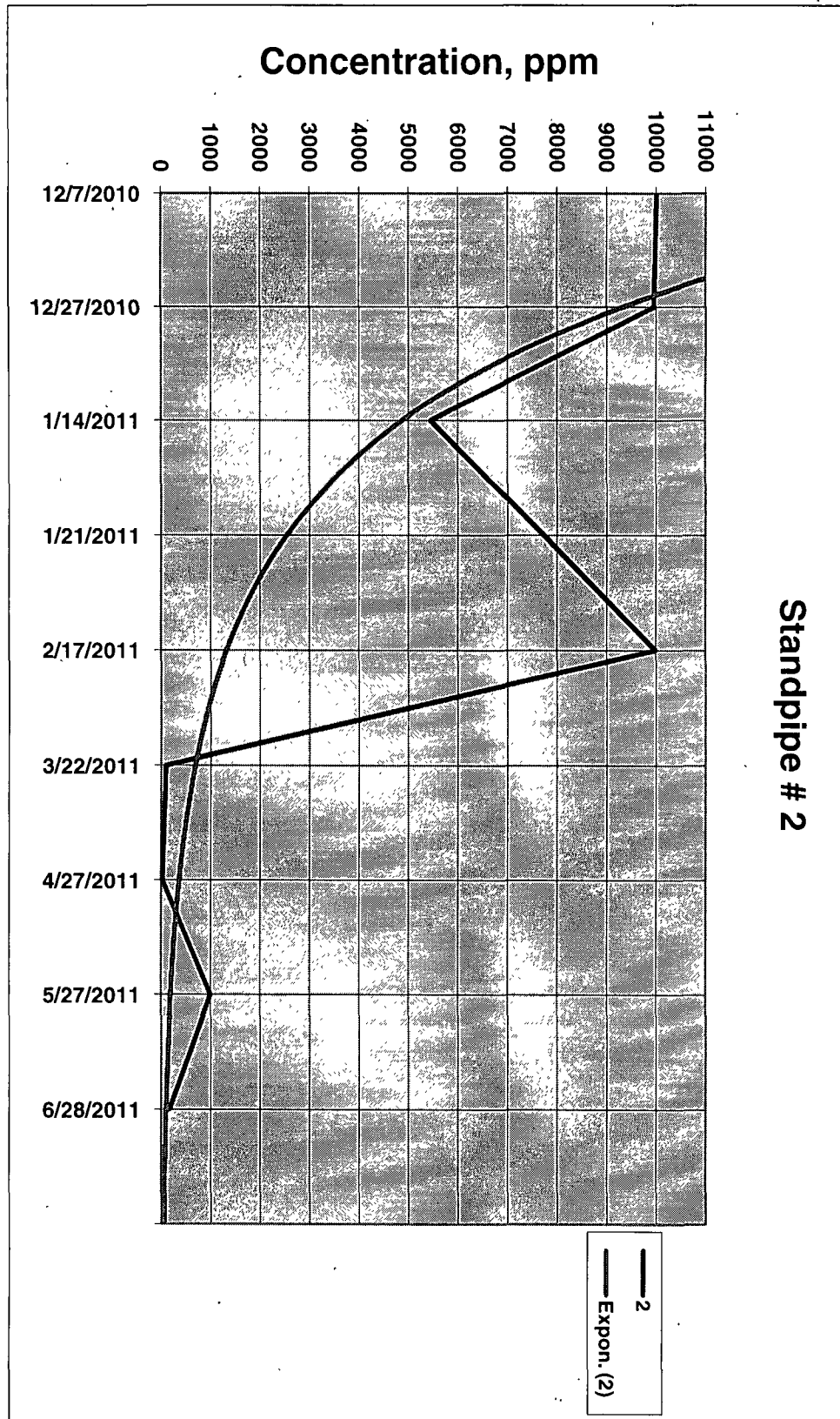


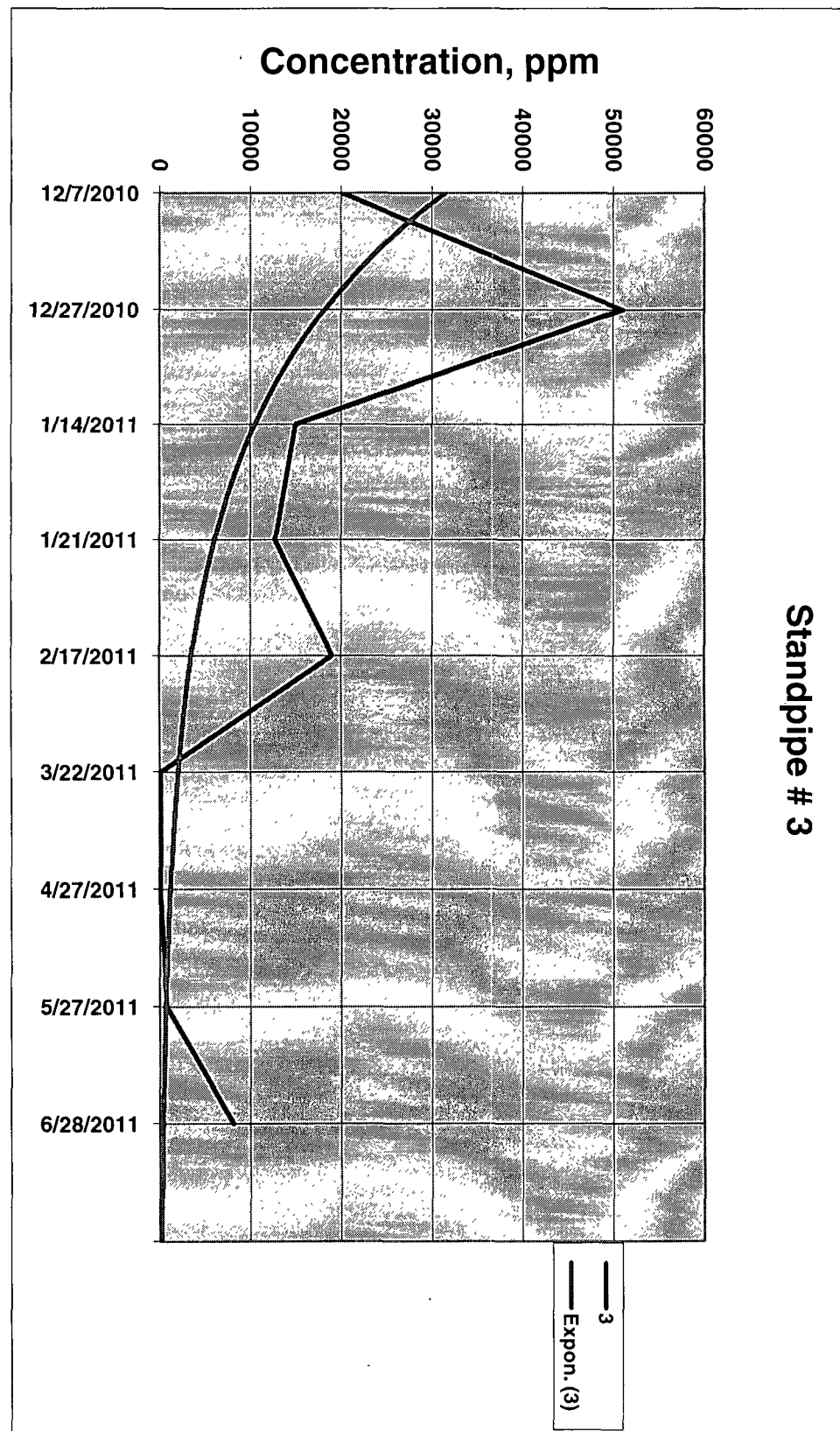
Standpipe # C(1)

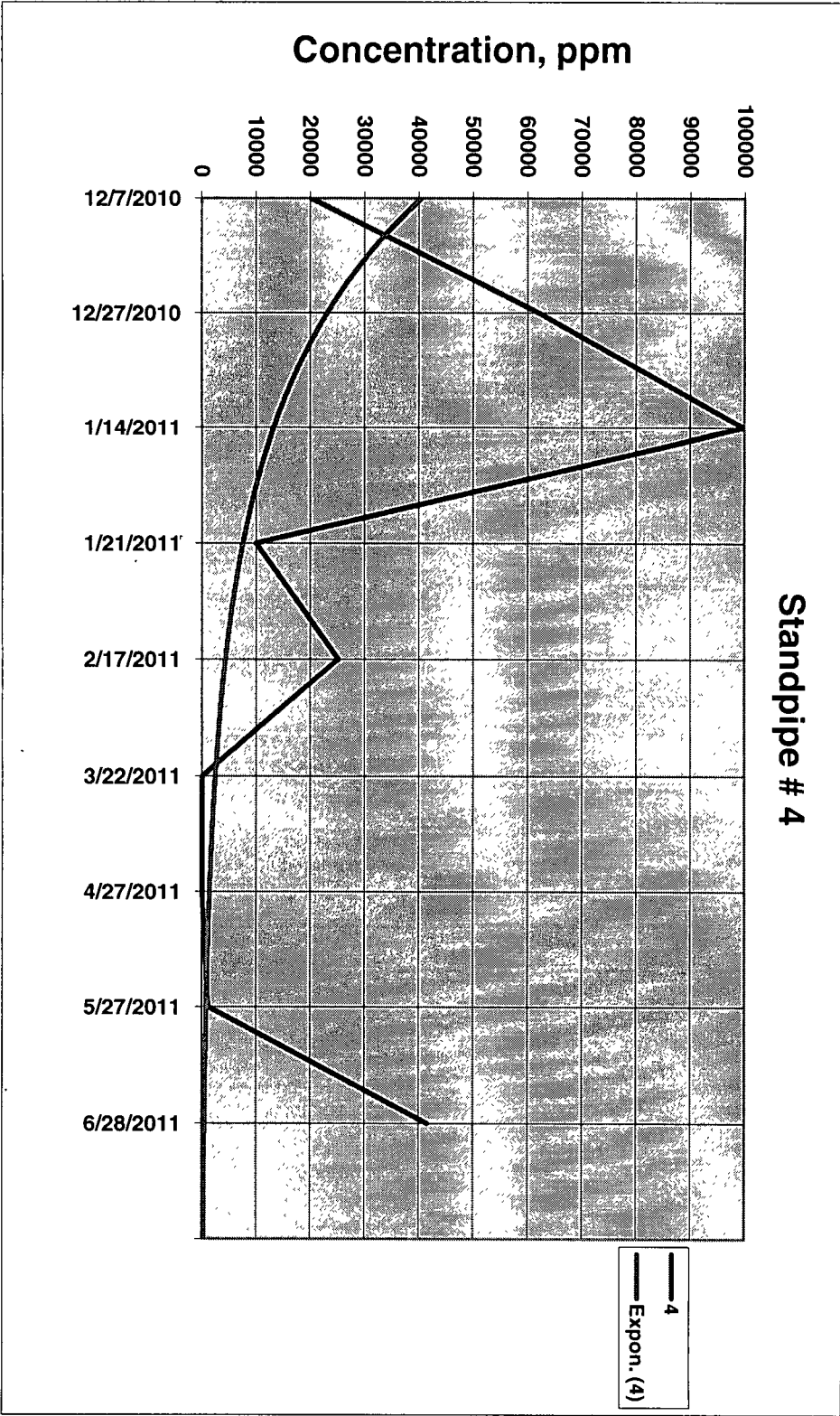


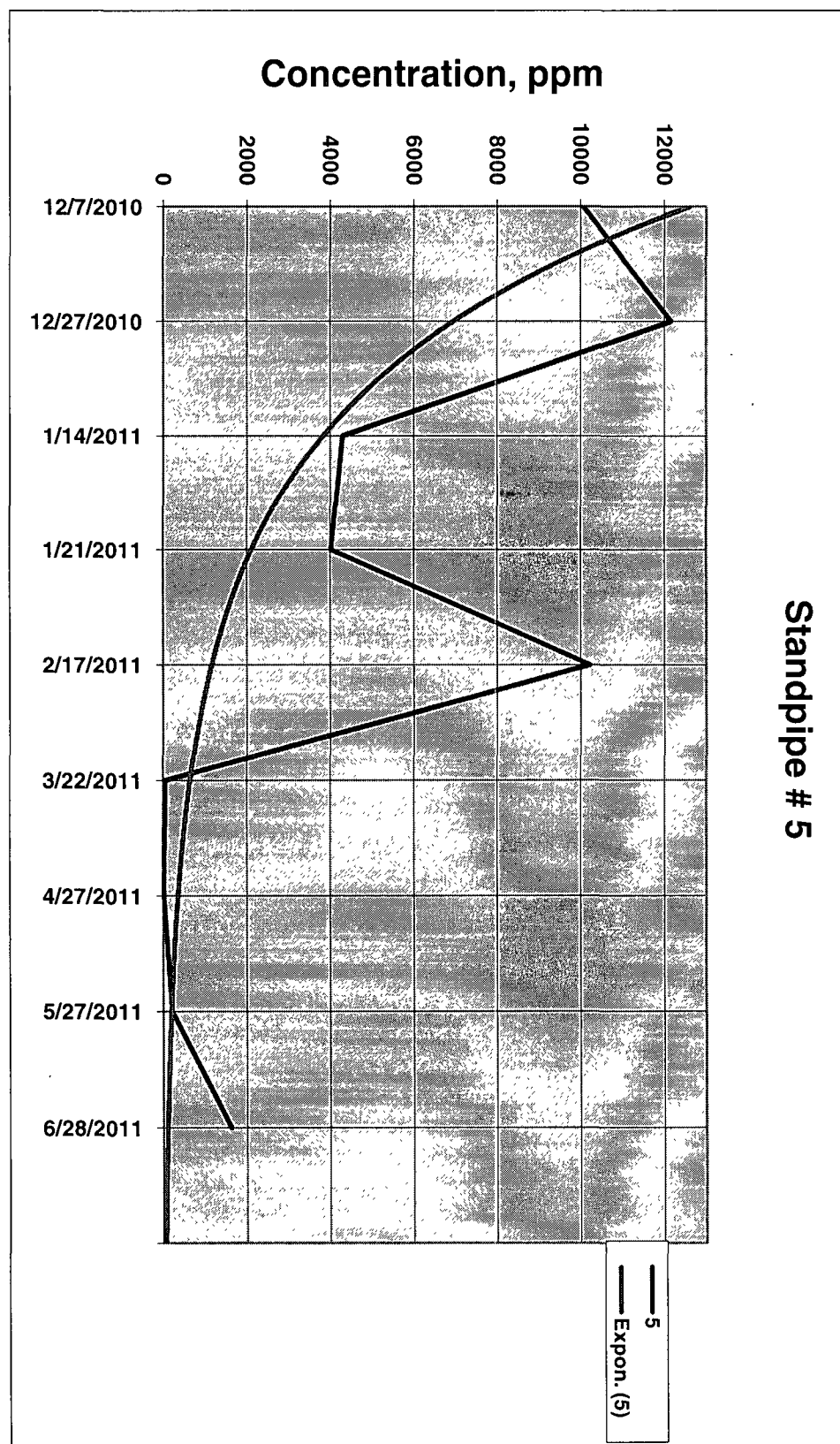


Standpipe # 2

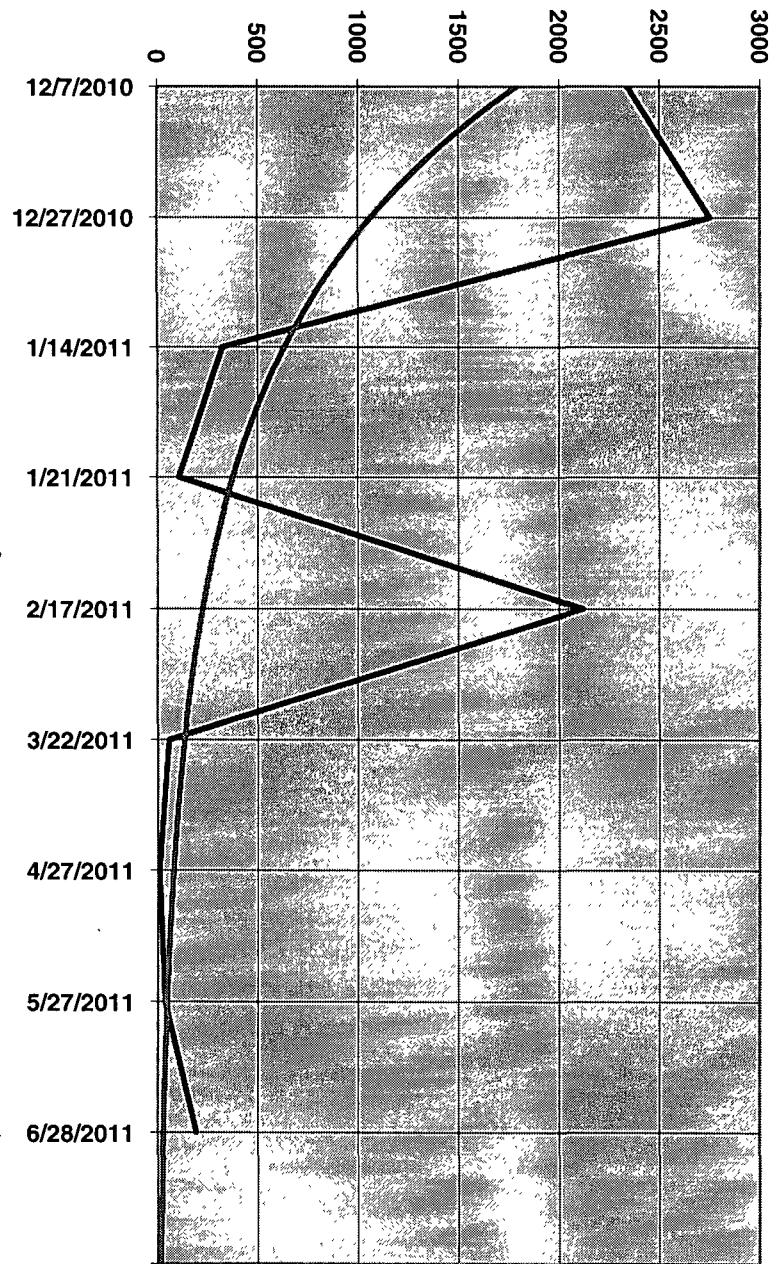






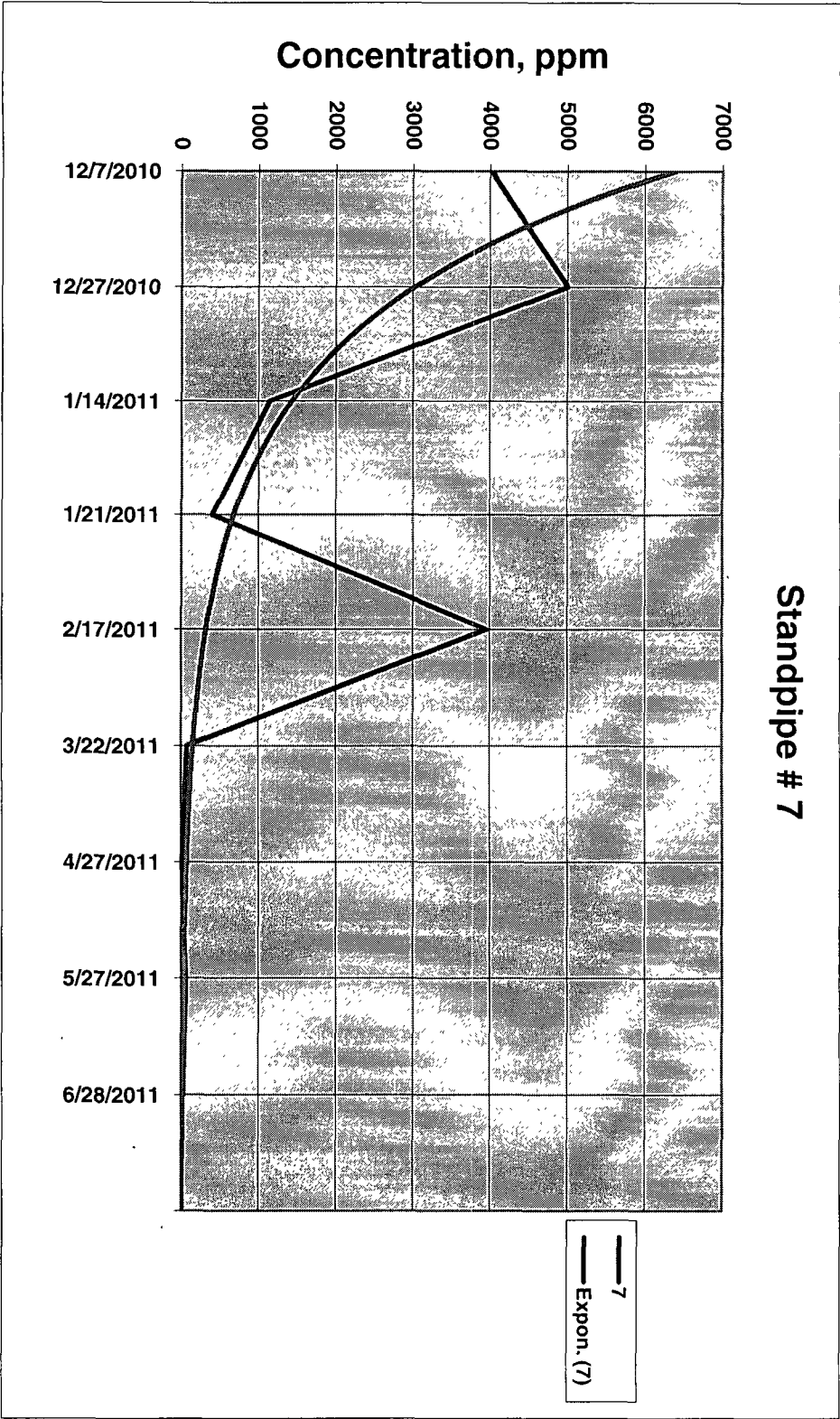


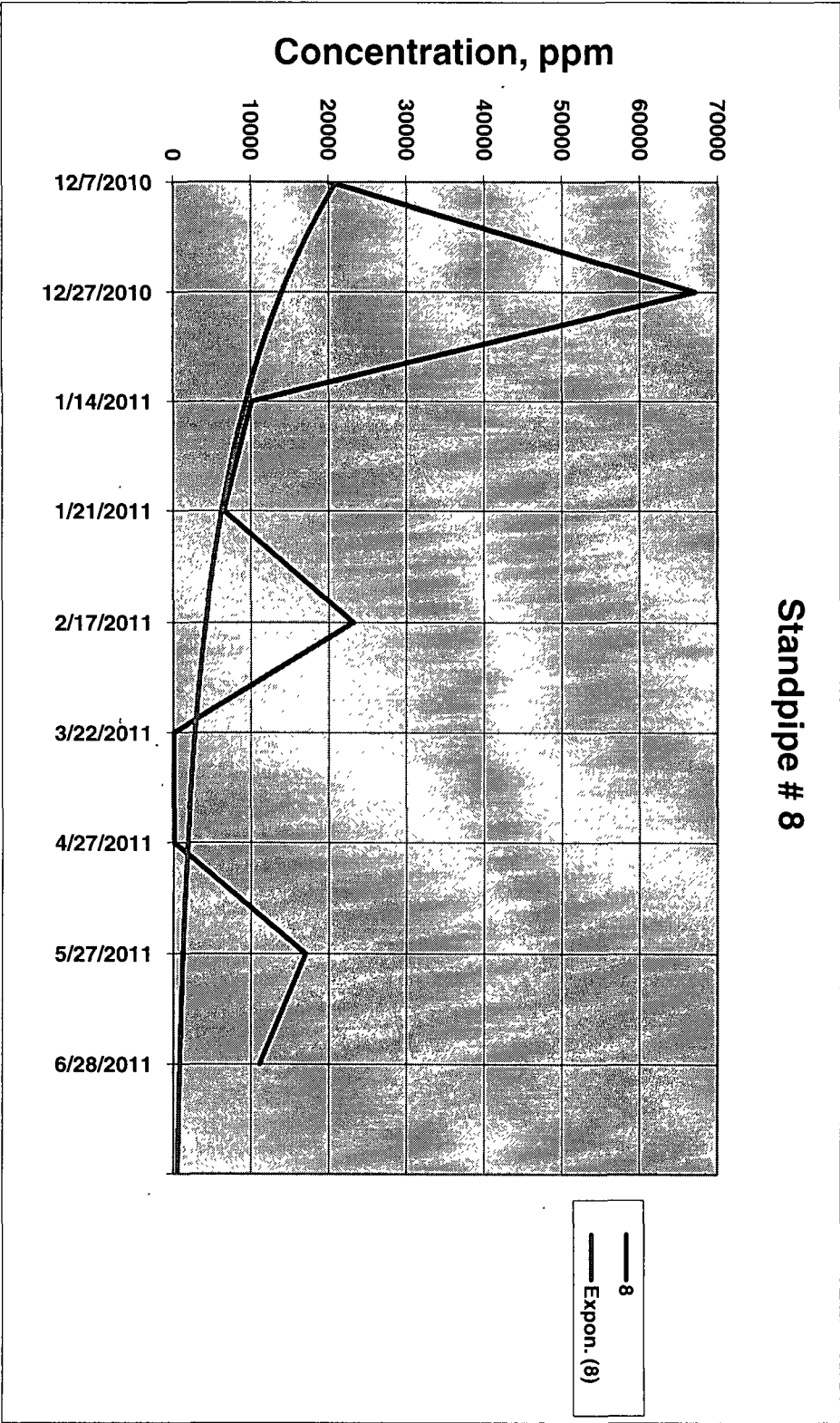
Concentration, ppm



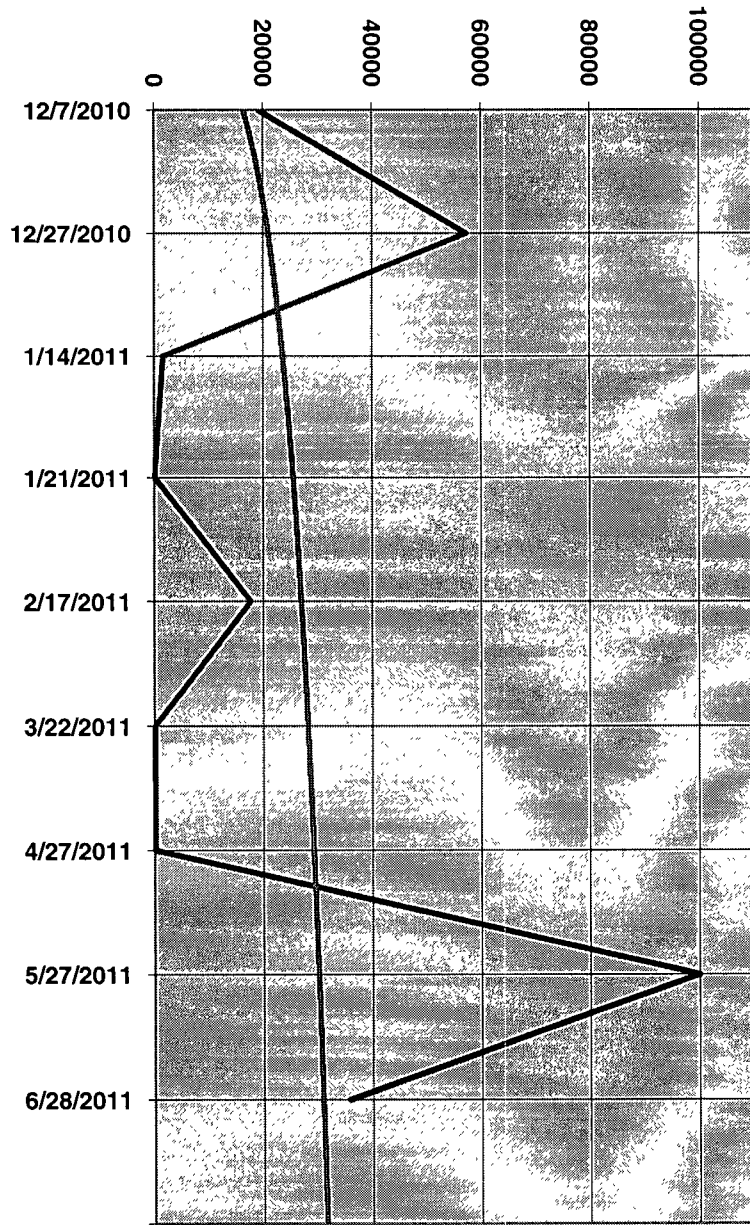
Standpipe # 6

— 6
- - - Expon. (6)





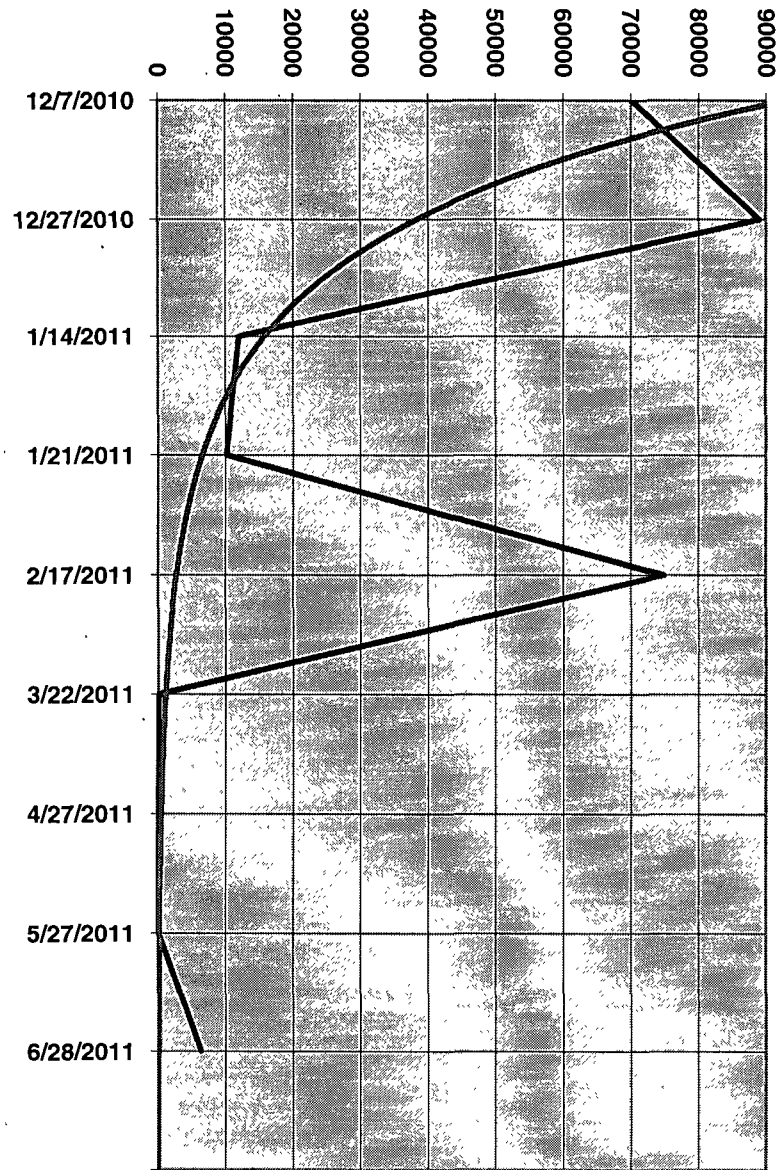
Concentration, ppm



Standpipe # 9

9
Log. (9)

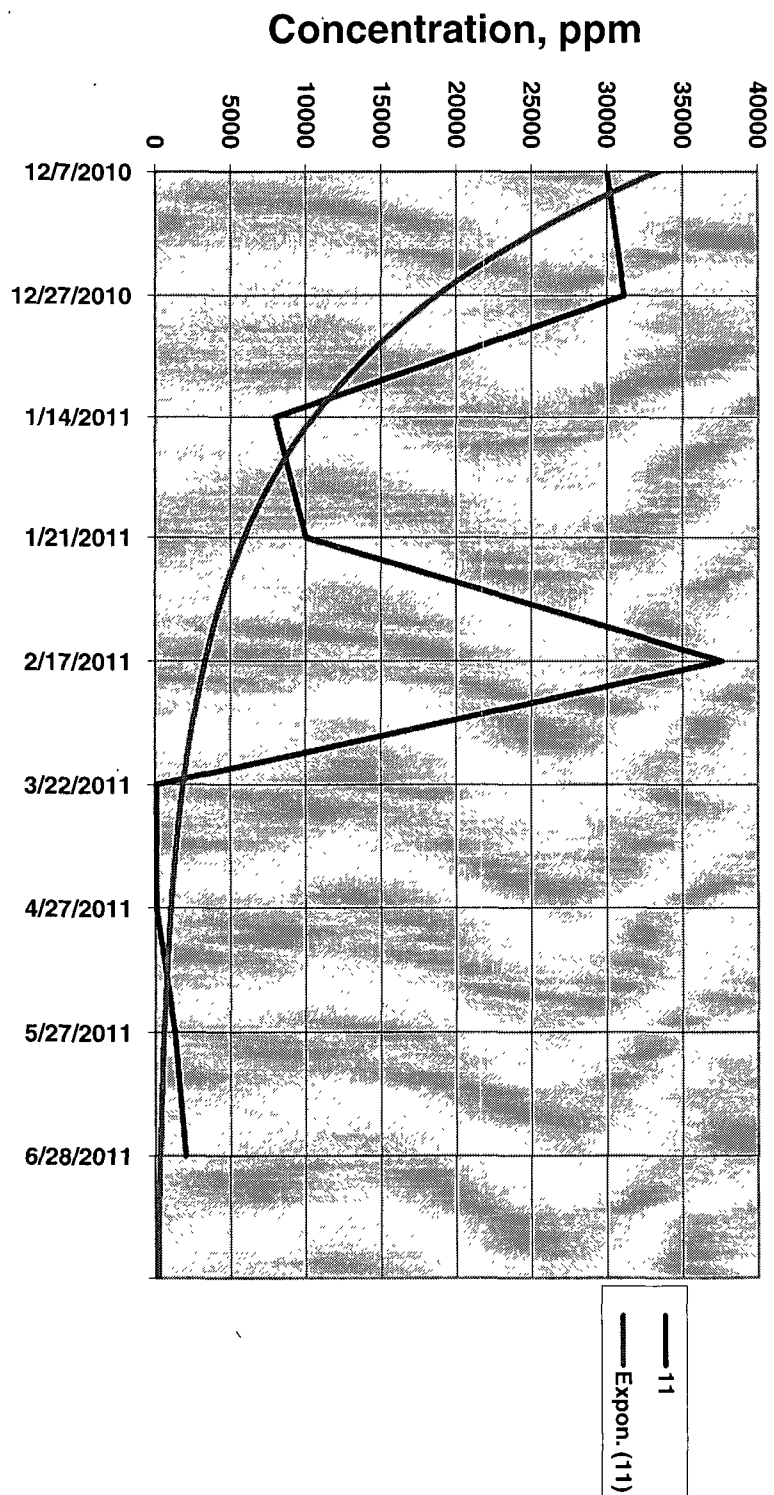
Concentration, ppm



Standpipe # 10

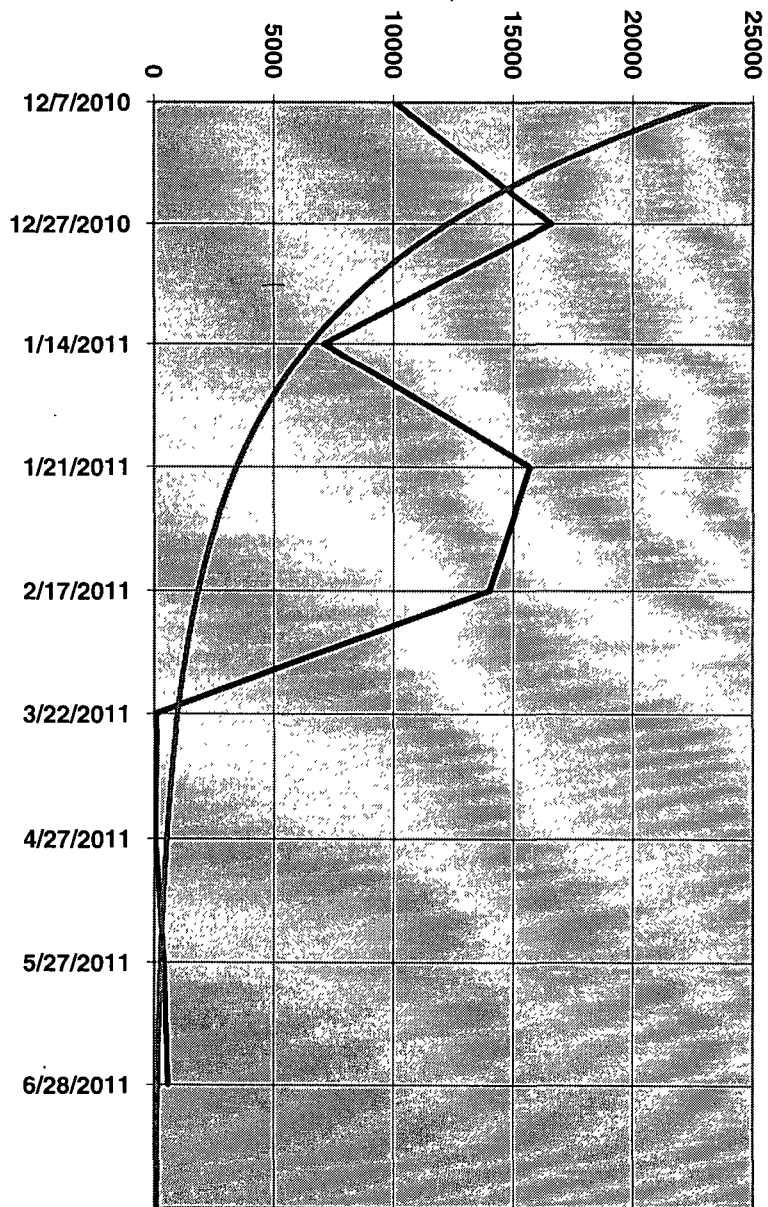
— 10
— Expon. (10)

Standpipe # 11



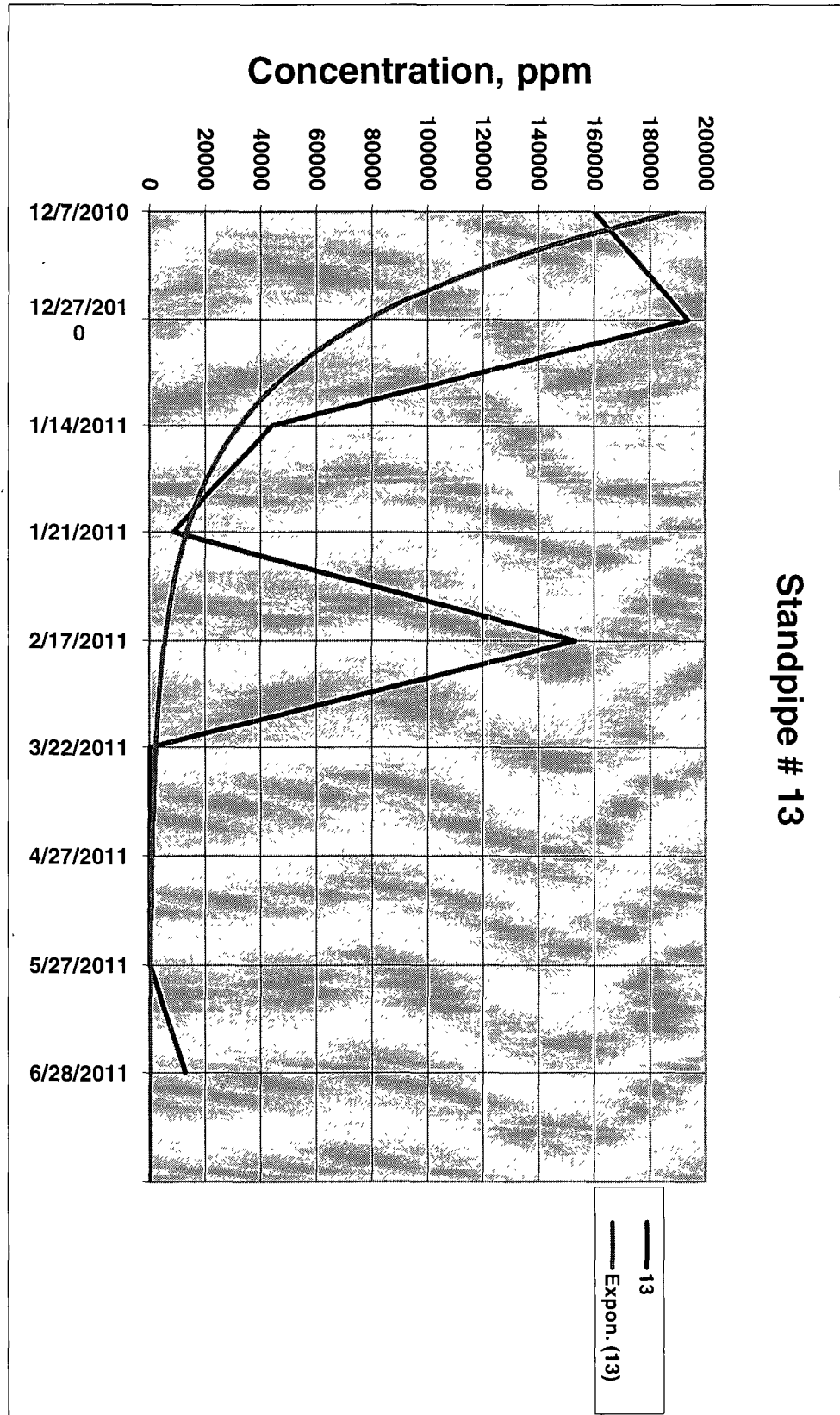
Concentration, ppm

Standpipe # 12

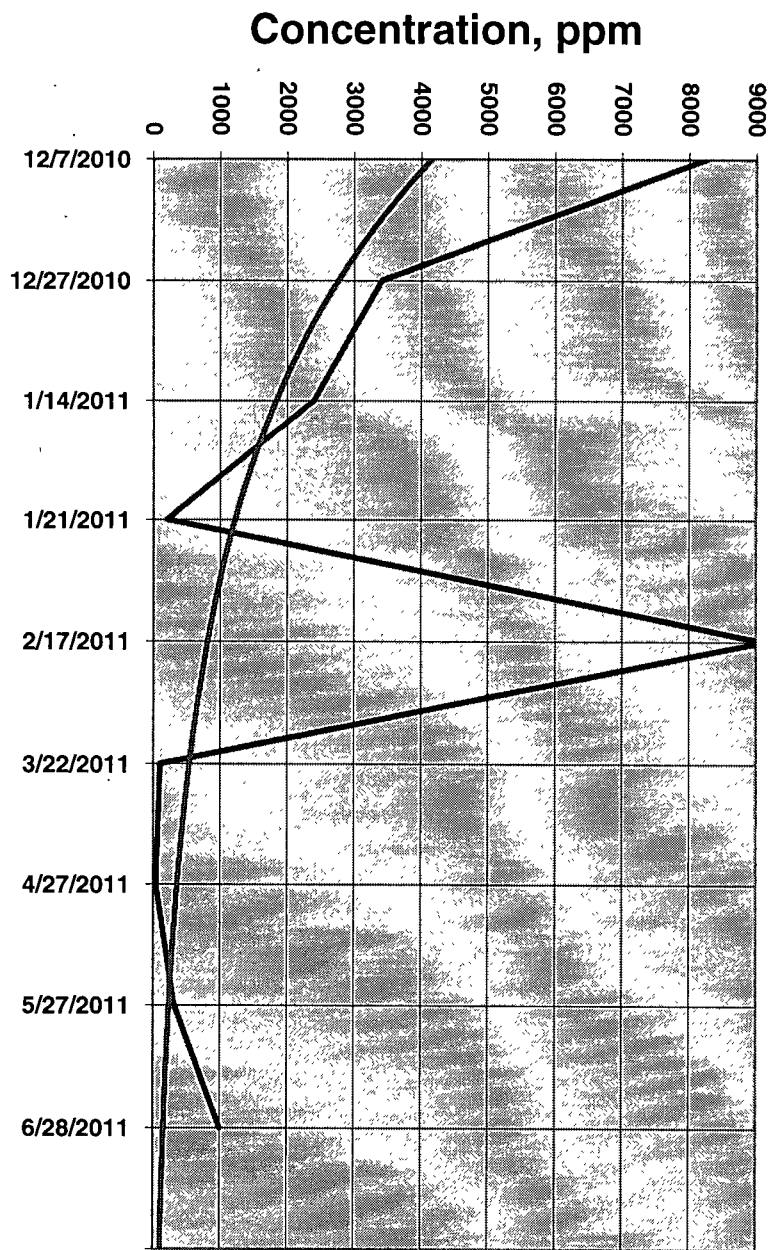


12
Expon. (12)

Standpipe # 13

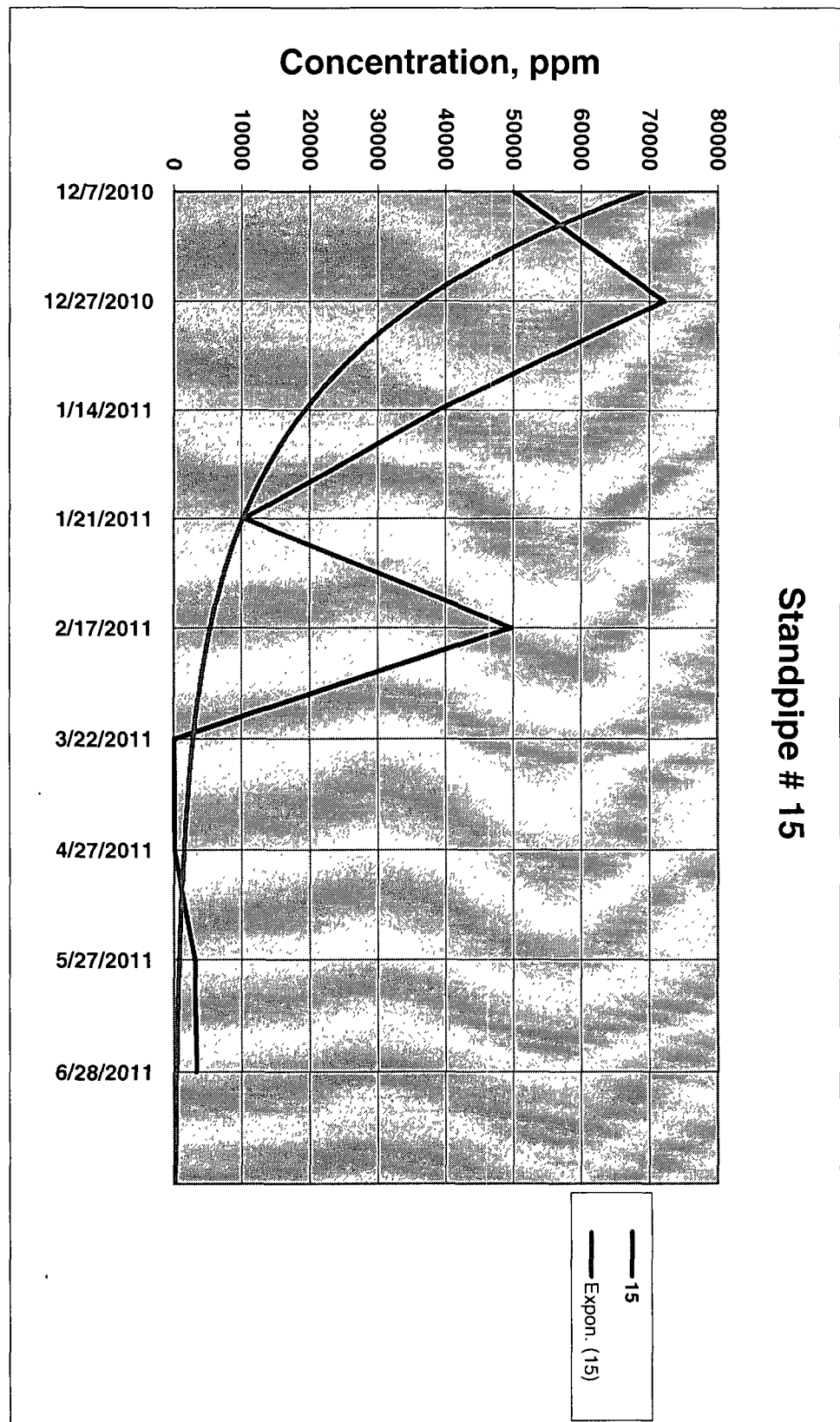


Standpipe # 14

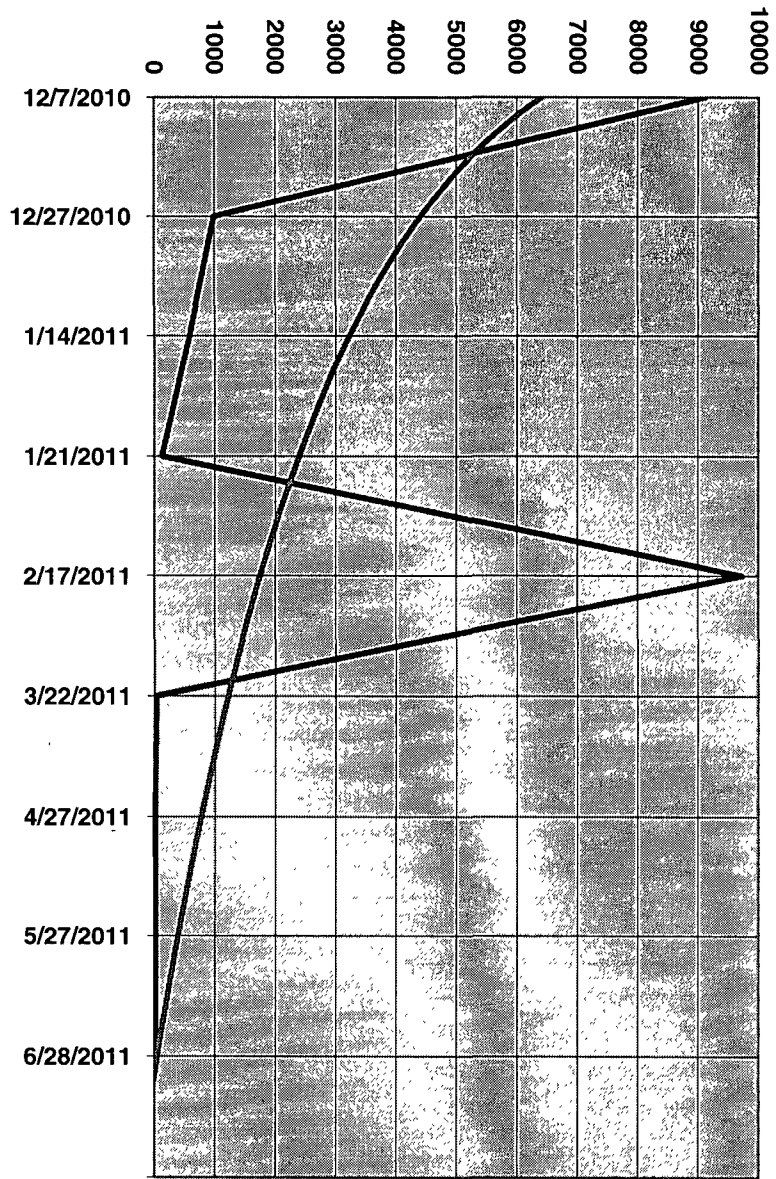


— 14
— Expon. (14)

Standpipe # 15



Concentration, ppm



Standpipe # 16

16
Log. (# 16)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 8:44

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.983	9.913
READING #2	1.992	9.922
READING #3	1.990	9.919
ERROR PRECISION	1.97	3.10
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 8:44

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	498	9.913
READING #2	491	9.922
READING #3	495	9.919
ERROR PRECISION	1.85	3.10
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.017	9.991
READING #2	2.017	9.991
READING #3	2.017	9.991
ERROR PRECISION	3.44	3.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED. 6/28/11 12:00

TECHNICIAN 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	482	9.991
READING #2	482	9.991
READING #3	482	9.991
ERROR PRECISION	4.37	3.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 14:50

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	475	9.671
READING #2	475	9.671
READING #3	475	9.671
ERROR PRECISION	5.75	0.53
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 6/28/11 14:52

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.971	9.671
READING #2	1.971	9.671
READING #3	1.971	9.671
ERROR PRECISION	1.08	0.53
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 6/30/2011 AT 8:56:28AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/14/11 10:32

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.940	9.720
READING #2	1.943	9.716
READING #3	1.943	9.715
ERROR PRECISION	0.41	1.01
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/14/11 10:32

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	507	9.720
READING #2	506	9.716
READING #3	501	9.715
ERROR PRECISION	0.13	1.01
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/14/11 13:06

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.980	9.920
READING #2	1.980	9.920
READING #3	1.980	9.920
ERROR PRECISION	1.54	3.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED. 1/14/11 13:06

TECHNICIAN. 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	501	9.920
READING #2	501	9.920
READING #3	501	9.920
ERROR PRECISION	0.60	3.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/14/11 15:00

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.955	9.631
READING #2	1.955	9.631
READING #3	1.955	9.631
ERROR PRECISION	0.26	0.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/26/2011 AT 8:08:36AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/14/11 15:00

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	496	9.631
READING #2	496	9.631
READING #3	496	9.631
ERROR PRECISION	1.59	0.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/26/2011 AT 8:08:36AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 9:14

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.895	9.541
READING #2	1.896	9.530
READING #3	1.898	9.533
ERROR PRECISION	2.75	0.89
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 9:15

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	515	9.541
READING #2	511	9.530
READING #3	512	9.528
ERROR PRECISION	1.72	0.90
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 12:47

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.518
READING #2	1.899	9.518
READING #3	1.899	9.518
ERROR PRECISION	2.62	1.06
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 12:48

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	519	9.518
READING #2	519	9.518
READING #3	519	9.518
ERROR PRECISION	2.98	1.06
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 16:38

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.905	9.525
READING #2	1.905	9.525
READING #3	1.905	9.525
ERROR PRECISION	2.31	0.99
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 1/21/11 16:39

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	522	9.525
READING #2	522	9.525
READING #3	552	9.525
ERROR PRECISION	5.56	0.99
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 9:19

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.930	9.390
READING #2	1.934	9.392
READING #3	1.939	9.387
ERROR PRECISION	0.80	2.39
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 9:19

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	499	9.390
READING #2	498	9.392
READING #3	499	9.387
ERROR PRECISION	1.06	2.39
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 12:48

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.940	9.395
READING #2	1.940	9.395
READING #3	1.940	9.395
ERROR PRECISION	0.51	2.34
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 12:49

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	491	9.395
READING #2	491	9.395
READING #3	491	9.395
ERROR PRECISION	2.58	2.34
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 16:39

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.945	9.399
READING #2	1.945	9.399
READING #3	1.945	9.399
ERROR PRECISION	0.26	2.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 1/21/11 16:40

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	489	9.399
READING #2	489	9.399
READING #3	489	9.399
ERROR PRECISION	2.98	2.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
5	5	5	5	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/24/2011 AT 9:31:58AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 9:44

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.902	9.499
READING #2	1.908	9.495
READING #3	1.907	9.491
ERROR PRECISION	2.27	1.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| \cdot 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 9:46

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	504	9.499
READING #2	508	9.495
READING #3	509	9.491
ERROR PRECISION	0.60	1.30
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 11:48

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.919	9.513
READING #2	1.919	9.513
READING #3	1.919	9.513
ERROR PRECISION	1.59	1.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 11:49

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.513
READING #2	511	9.513
READING #3	511	9.513
ERROR PRECISION	1.39	1.11
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 16:13

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.406
READING #2	1.899	9.406
READING #3	1.899	9.406
ERROR PRECISION	2.62	2.22
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 2/17/11 16:13

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	500	9.406
READING #2	500	9.406
READING #3	500	9.406
ERROR PRECISION	0.79	2.22
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 9:46

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.950	9.597
READING #2	1.949	9.591
READING #3	1.952	9.593
ERROR PRECISION	0.02	0.27
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 9:47

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	501	9.597
READING #2	499	9.591
READING #3	498	9.593
ERROR PRECISION	0.93	0.27
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 11:49

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	506	9.581
READING #2	506	9.581
READING #3	506	9.581
ERROR PRECISION	0.40	0.41
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 11:50

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PC	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.959	9.581
READING #2	1.959	9.581
READING #3	1.959	9.581
ERROR PRECISION	0.46	0.41
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 16:13

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.980	9.613
READING #2	1.980	9.613
READING #3	1.980	9.613
ERROR PRECISION	1.54	0.07
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 730425604 - TVA 1000

DATE CALIBRATED: 2/17/11 16:14

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.613
READING #2	511	9.613
READING #3	511	9.613
ERROR PRECISION	1.39	0.07
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 3/10/2011 AT 4:08:59PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 8:58

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.963	9.634
READING #2	1.967	9.631
READING #3	1.952	9.621
ERROR PRECISION	0.55	0.09
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39:58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 8:58

TECHNICIAN 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	509	9.634
READING #2	510	9.631
READING #3	515	9.621
ERROR PRECISION	1.46	0.09
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	3	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.015	9.901
READING #2	2.015	9.901
READING #3	2.015	9.901
ERROR PRECISION	3.33	2.92
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	520	9.901
READING #2	520	9.901
READING #3	520	9.901
ERROR PRECISION	3.17	2.92
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 15:53

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.999	9.816
READING #2	1.999	9.816
READING #3	1.999	9.816
ERROR PRECISION	2.51	2.04
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0712122196 - TVA1000

DATE CALIBRATED: 12/7/10 15:53

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	518	9.816
READING #2	518	9.816
READING #3	518	9.816
ERROR PRECISION	2.78	2.04
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 9:03

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.977	9.668
READING #2	1.971	9.663
READING #3	1.973	9.661
ERROR PRECISION	1.21	0.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	3	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT 0730425599 - TVA-1000

DATE CALIBRATED. 12/7/10 9:04

TECHNICIAN. 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	516	9.668
READING #2	517	9.663
READING #3	516	9.661
ERROR PRECISION	2.45	0.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39:58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.996	9.769
READING #2	1.996	9.769
READING #3	1.996	9.769
ERROR PRECISION	2.36	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 12:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	527	9.769
READING #2	527	9.769
READING #3	527	9.769
ERROR PRECISION	4.56	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39:58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 15:54

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.005	9.769
READING #2	2.005	9.769
READING #3	2.005	9.769
ERROR PRECISION	2.82	1.55
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 12/16/2010 AT 1:39:58PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/7/10 15:55

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	535	9.799
READING #2	535	9.799
READING #3	535	9.799
ERROR PRECISION	6.15	1.86
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 9:26

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.957	9.699
READING #2	1.953	9.703
READING #3	1.959	9.709
ERROR PRECISION	0.32	0.87
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 0730425599 - TVA-1000

DATE CALIBRATED. 12/27/10 9:27

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	511	9.699
READING #2	507	9.703
READING #3	508	9.709
ERROR PRECISION	0.93	0.87
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/13/2011 AT 4:09:23PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 12:30

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.968	9.711
READING #2	1.968	9.711
READING #3	1.968	9.711
ERROR PRECISION	0.92	0.95
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 12:30

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	517	9.711
READING #2	517	9.711
READING #3	517	9.711
ERROR PRECISION	2.58	0.95
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/13/2011 AT 4:09:23PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 15:48

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.974	9.718
READING #2	1.974	9.718
READING #3	1.974	9.718
ERROR PRECISION	1.23	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 12/27/10 15:49

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08,PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.718
READING #2	523	9.718
READING #3	523	9.718
ERROR PRECISION	3.77	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 1/13/2011 AT 4:09:23PM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 9:27

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.929	9.506
READING #2	1.923	9.521
READING #3	1.913	9.509
ERROR PRECISION	1.45	1.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 9:28

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9 620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	499	9.506
READING #2	501	9.521
READING #3	503	9.509
ERROR PRECISION	0.60	1.12
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 12:30

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.931	9.553
READING #2	1.931	9.553
READING #3	1.931	9.553
ERROR PRECISION	0.97	0.70
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 12:30

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	508	9.553
READING #2	508	9.553
READING #3	508	9.553
ERROR PRECISION	0.79	0.70
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT. 1008240833 - TVA-1000

DATE CALIBRATED. 12/27/10 15:49

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.938	9.564
READING #2	1.938	9.564
READING #3	1.938	9.564
ERROR PRECISION	0.62	0.58
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 1008240833 - TVA-1000

DATE CALIBRATED: 12/27/10 15:49

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.718
READING #2	523	9.718
READING #3	523	9.718
ERROR PRECISION	3.77	1.02
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 9:11

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.899	9.401
READING #2	1.898	9.409
READING #3	1.904	9.400
ERROR PRECISION	2.55	2.25
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	3	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 9:18

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	520	9.401
READING #2	519	9.409
READING #3	517	9.400
ERROR PRECISION	2.91	2.25
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 12:55

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.941	9.490
READING #2	1.941	9.490
READING #3	1.941	9.490
ERROR PRECISION	0.46	1.35
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 12:55

TECHNICIAN: 1086 - BARBIE PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	523	9.490
READING #2	523	9.490
READING #3	523	9.490
ERROR PRECISION	3.77	1.35
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \times 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED. 3/22/11 16:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PC	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	1.850	9.351
READING #2	1.850	9.351
READING #3	1.850	9.351
ERROR PRECISION	5.13	2.80
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 3/22/11 16:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	510	9.357
READING #2	510	9.357
READING #3	510	9.357
ERROR PRECISION	1.19	2.73
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

PRINTED ON 4/27/2011 AT 10:48:14AM

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 8:37

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.043	9.955
READING #2	2.039	9.953
READING #3	2.040	9.951
ERROR PRECISION	4.65	3.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	3	4	3	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 8:37

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	519	9.955
READING #2	518	9.953
READING #3	520	9.951
ERROR PRECISION	2.98	3.46
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
3	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 16:40

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0004	L0004-EXP:12/5/2013 METHANE MIX/LOT#1204SE08 PO	12/05/2008	1.950
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	2.001	9.900
READING #2	2.001	9.900
READING #3	2.001	9.900
ERROR PRECISION	2.62	2.91
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT (<=10%)

WESTERN REFINING SOUTHWEST GALLUP REFINERY

CALIBRATION REPORT

INSTRUMENT: 0730425599 - TVA-1000

DATE CALIBRATED: 4/27/11 16:00

TECHNICIAN: 1323 - TRACEY PRIETO

CALIBRATION GASES

GAS TYPE	GAS CODE	DESCRIPTION	CERTIFICATION DATE	CONCENTRATION
LOW	L0005	EXP 12/5/13 METHANE MIX/ LOT# 1204SD08 PO # 0840	12/05/2008	504
HIGH	H0003	METHANE MIX / LOT# 1204SF08 PO# 46043	12/05/2008	9.620
ZERO	Z0001	AIR ULTRA ZERO PO # C14247 CYLINDER #44 DOCUME	08/01/2006	0

METER CERTIFICATION RESPONSE

	LOW	HIGH
READING #1	503	9.900
READING #2	503	9.900
READING #3	503	9.900
ERROR PRECISION	0.20	2.91
PASSED	Yes	Yes

PRECISION FOR THE INSTRUMENT IS ACCEPTED WHEN THE AVERAGE OF THE ABSOLUTE VALUE OF % ERROR IS EQUAL TO OR LESS THAN 10%

$$\% \text{ERROR PRECISION} = \left| \frac{(\text{METER READING}) - (\text{KNOWN VALUE OF CALIBRATION GAS})}{(\text{KNOWN VALUE OF THE CALIBRATION GAS})} \right| * 100$$

RESPONSE TIME

FIRST READING	SECOND READING	THIRD READING	AVERAGE	PASSED
4	4	4	4	Yes

ACCEPTABLE RESPONSE TIME SHOULD BE 30 SECONDS OR LESS FROM THE TIME THE CALIBRATION GAS IS INTRODUCED, TO THE TIME THE INSTRUMENT IS EQUAL TO OR LESS THAN +/- TEN PERCENT ($\leq 10\%$)

WESTERN REFINING SOUTHWEST GALLUP REFINERY
CALIBRATION DRIFT ASSESSMENT REPORT

1008240826 - TVA-1000

DATE: 05/27/2011

TIME	LOW GAS CONCENTRTN	LOW GAS AVE RDG	LOW GAS PRECISN	HIGH GAS CONCENTRTN	HIGH GAS AVE RDG	HIGH GAS PRECISN	NOTE
8:13:04 am	1,950	1,971	1.09 %	9,620	9,722	1.06 %	CALIBRATION
8:13:25 am	504	511	1.39 %	9,620	9,722	1.06 %	
11:17:06 am	1,950	2,001	2.62 %	9,620	9,772	1.58 %	
11:17:52 am	504	525	4.17 %	9,620	9,772	1.58 %	

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Tuesday, January 18, 2011 5:27 PM
To: Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; VanHorn, Kristen, NMENV
Subject: FW: Initial C-141 for Slop Line and Caustic Tank
Attachments: Slop Line Init 010311 C-141.pdf; Caustic Tank Init 010411 C-141.pdf

Sorry folks but I just realized that the e-mail that I sent on Friday, January 14, with the C-141 attachment did not have an attachment.

Sorry for the confusion.

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

From: Larsen, Thurman
Sent: Tuesday, January 18, 2011 8:50 AM
To: 'VanHorn, Kristen, NMENV'
Subject: RE: Initial C-141 for Slop Line and Caustic Tank

Sorry,
I must have got in a hurry.

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

From: VanHorn, Kristen, NMENV [<mailto:Kristen.VanHorn@state.nm.us>]
Sent: Tuesday, January 18, 2011 8:28 AM
To: Larsen, Thurman
Subject: RE: Initial C-141 for Slop Line and Caustic Tank

Beck,
The last email you sent with the spill info didn't have any forms attached. Can you please re-send them?

Thanks!

Kristen Van Horn

*NMED Hazardous Waste Bureau
2905 Rodeo Park Drive East Building 1
Santa Fe, NM 87505
Phone: 505-476-6046*

From: Larsen, Thurman [<mailto:Thurman.Larsen@wnr.com>]

Sent: Friday, January 14, 2011 4:09 PM

To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV

Subject: Initial C-141 for Slop Line and Caustic Tank

Importance: High

Dear Kristen,

The above attachments are the initial C-141 reports for the Slop Line and Caustic Tank incidents that occurred on January 3 and January 4, 2011 respectively. Please feel free to contact me if you have any questions.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Tuesday, January 18, 2011 9:47 AM
To: Strange, Aaron
Cc: Moore, Darrell; Lackey, Johnny; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: RE: C-141 report

Aaron

The C-141 form states "[a]fter the soil is removed Navajo will collect bottom hole samples." The analytical suite should include DRO analysis. Please send NMED a copy of the analytical results. This information must be submitted to NMED by April 1, 2011.

Let me know if you have any questions.

Hope

From: Strange, Aaron [<mailto:aaron.strange@hollycorp.com>]
Sent: Monday, January 17, 2011 3:40 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV; Dade, Randy, EMNRD; Hill, Larry, EMNRD
Cc: Moore, Darrell; Lackey, Johnny
Subject: C-141 report

Hope, Carl, Randy, and Buddy,

Please see the attached C-141.

Thank you,
Aaron

Aaron Strange
Environmental Technician, Senior
Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

CONFIDENTIALITY NOTICE: This e-mail, and any attachments, may contain information that is privileged, proprietary and/or confidential. If you received this message in error, please advise the sender immediately by reply e-mail and do not retain any paper or electronic copies of this message or any attachments. Unless expressly stated, nothing contained in this message should be construed as a digital or electronic signature or a commitment to a binding agreement.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen	
Address I-40 / Exit 39	Telephone No.(505) 722-0258	
Facility Name Western Refining (Gallup)	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude_35° 29' 030" _Longitude_ 108° 24' 040"

NATURE OF RELEASE

Type of Release Slop Line (Product Mixture)	Volume of Release <12 bbls Oil (<504 gallons)	Volume Recovered (Recovery Pending)
Source of Release Rupture in the 2 inch Line from T-107 to T-105	Date and Hour of Occurrence 1/02/2011 / <1430 hrs (approximate)	Date and Hour of Discovery 1/02/2011 / 1430 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (Kristen Van Horn/ Hope Monziglio/Ruth Horowitz) / OCD (Brandon Powel)	
By Whom? Beck Larsen	Date and Hour 1/03/11 1404 (msg) /1407 (msg) / 1412/ 1423 (msg)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

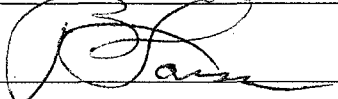
If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* At approximately 1430 hrs on 1/02/2011, the API Operator discovered a rupture in the 2 inch slop line from T-107 to T-105. The line ruptured was due to a line freeze. A vacuum truck operator was notified to begin removal of the slop oil along the pipe rack and affected ditch areas. The line was repaired using an engineering clamp. This section of the line is to be scheduled for replacement.

Describe Area Affected and Cleanup Action Taken.* The line ruptured occurred at the intersection of the road and the west side of pipe rack. The area affected included under the pipe rack and affected ditch area. A vacuum truck operator was immediately notified to begin remedial cleanup of these areas. Cleanup efforts are in progress. All contaminated soils are being removed for disposal.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 1/14/2011	Phone:(505) 722-0258		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen	
Address I-40 / Exit 39	Telephone No.(505) 722-0258	
Facility Name Western Refining (Gallup)	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

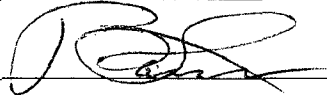
Type of Release Sodium Hydroxide (Caustic)	Volume of Release 9527 lbs	Volume Recovered Unknown Volume
Source of Release Caustic Tank at Flare Area	Date and Hour of Occurrence 1/04/2011 / 0800 hrs (approximate)	Date and Hour of Discovery 1/04/2011 / 0800 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NRC (Report # 963846); NMED (Ruth Horowitz) / OCD (Carl Chavez)	
By Whom? Beck Larsen	Date and Hour 1/05/11 (1620 to 1705 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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

Describe Cause of Problem and Remedial Action Taken.* At approximately 0800, the API Operator discovered caustic coming from the caustic tank line. The caustic tank is heated with internal steam coils. Corrosion, pipe and valve freeze caused the caustic to eat through the steam coils and associated discharge valve. Caustic began to filling the containment pin and an estimated 2300 gallons (9527 lbs) went on to the ground. Most of the caustic was removed with a vacuum truck. Any remaining caustic was neutralized. Soil samples were collected to confirm neutralization.

Describe Area Affected and Cleanup Action Taken.* The area included the containment pin and the soil beneath the associated piping system. The caustic was removed with a vacuum truck. Any remaining caustic was neutralized. Soil samples were collected to confirm neutralization. The internal steam coils, valves, and associated piping has been repaired or replaced.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 1/14/2011	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, January 14, 2011 4:09 PM
To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: Initial C-141 for Slop Line and Caustic Tank
Importance: High
Follow Up Flag: For Your Information
Flag Status: Flagged

Dear Kristen,

The above attachments are the initial C-141 reports for the Slop Line and Caustic Tank incidents that occurred on January 3 and January 4, 2011 respectively. Please feel free to contact me if you have any questions.

Sincerely,

Beck Larsen, CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, January 14, 2011 4:04 PM
To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: Recall:

Larsen, Thurman would like to recall the message, "".

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, January 14, 2011 3:58 PM
To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Subject: Recall:

Larsen, Thurman would like to recall the message, "".

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, January 14, 2011 3:53 PM
To: VanHorn, Kristen, NMENV; Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV
Attachments: Slop Line Init 010311 C-141.pdf; Caustic Tank Init 010411 C-141.pdf

Dear Kristen,

The above attachments are the initial C-141 for the Slop Line rupture and for the Caustic Tank line. Please feel free to contact me if you have any questions.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen
Address I-40 / Exit 39	Telephone No.(505) 722-0258
Facility Name Western Refining (Gallup)	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Slop Line (Product Mixture)	Volume of Release <12 bbls Oil (<504 gallons)	Volume Recovered (Recovery Pending)
Source of Release Rupture in the 2 inch Line from T-107 to T-105	Date and Hour of Occurrence 1/02/2011 / <1430 hrs (approximate)	Date and Hour of Discovery 1/02/2011 / 1430 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (Kristen Van Horn/ Hope Monziglio/Ruth Horowitz) / OCD (Brandon Powel)	
By Whom? Beck Larsen	Date and Hour 1/03/11 1404 (msg) /1407 (msg) / 1412/ 1423 (msg)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

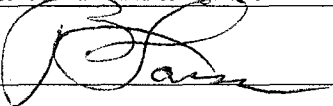
If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* At approximately 1430 hrs on 1/02/2011, the API Operator discovered a rupture in the 2 inch slop line from T-107 to T-105. The line ruptured was due to a line freeze. A vacuum truck operator was notified to begin removal of the slop oil along the pipe rack and affected ditch areas. The line was repaired using an engineering clamp. This section of the line is to be scheduled for replacement.

Describe Area Affected and Cleanup Action Taken.* The line ruptured occurred at the intersection of the road and the west side of pipe rack. The area affected included under the pipe rack and affected ditch area. A vacuum truck operator was immediately notified to begin remedial cleanup of these areas. Cleanup efforts are in progress. All contaminated soils are being removed for disposal.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 1/14/2011	Phone:(505) 722-0258		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
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side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen	
Address I-40 / Exit 39	Telephone No. (505) 722-0258	
Facility Name Western Refining (Gallup)	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Sodium Hydroxide (Caustic)	Volume of Release 9527 lbs	Volume Recovered Unknown Volume
Source of Release Caustic Tank at Flare Area	Date and Hour of Occurrence 1/04/2011 / 0800 hrs (approximate)	Date and Hour of Discovery 1/04/2011 / 0800 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NRC (Report # 963846); NMED (Ruth Horowitz) / OCD (Carl Chavez)	
By Whom? Beck Larsen	Date and Hour 1/05/11 (1620 to 1705 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

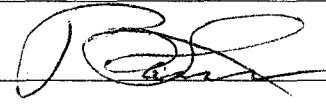
If a Watercourse was Impacted, Describe Fully. * N/A

Describe Cause of Problem and Remedial Action Taken. * At approximately 0800, the API Operator discovered caustic coming from the caustic tank line. The caustic tank is heated with internal steam coils. Corrosion, pipe and valve freeze caused the caustic to eat through the steam coils and associated discharge valve. Caustic began to filling the containment pin and an estimated 2300 gallons (9527 lbs) went on to the ground. Most of the caustic was removed with a vacuum truck. Any remaining caustic was neutralized. Soil samples were collected to confirm neutralization.

Describe Area Affected and Cleanup Action Taken. * The area included the containment pin and the soil beneath the associated piping system. The caustic was removed with a vacuum truck. Any remaining caustic was neutralized. Soil samples were collected to confirm neutralization. The internal steam coils, valves, and associated piping has been repaired or replaced.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: 1/14/2011	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Horowitz, Ruth, NMENV
Sent: Monday, January 03, 2011 2:23 PM
To: Chavez, Carl J, EMNRD
Subject: Spill report

Hi Carl,

Happy New Year.

Environmental Notification Tracking System

View Notification

[Back to list](#)

Notification Id	7794
Notification Type	Spills
Notification Date	1/3/2011 2:13:44 PM
Notification Priority	Low
EJ Issue	<input type="checkbox"/>
Status	
Assigned Bureau	
Assigned Staff	
Status Date	
Description	Stop line rupture, approximately 12 barrels were released. Oil field products. Rupture was discovered at approximately 2:30 PM January 2, 2011
Location	Tank 107 to tank 105, approximately 17 miles east of Gallup.
Nearest City	Jamestown
County	Mckinley
District	
Field Office	
Suspected Violator	Western Refining
Violator Address1	Rte 3 Box 7
Violator Address2	
Violator City	Gallup
Violator State	New Mexico
Violator Zip	87301
Violator Phone	505-722-0258
Reporter Name	Beck Larson/Western Refining
Reporter	Rte 3 Box 7

Date Created 1/3/2011 2:19:50 PM

6030

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Saturday, October 30, 2010 11:25 AM
To: Chavez, Carl J, EMNRD
Subject: FW: FINAL REPORT RESPONSE LETTERS for July 30 and August 2, 2010 API Overflows
Attachments: API FINAL REPORT LTR-073010.pdf; API FINAL REPORT LTR-080210.pdf; API OF ANALYSIS-072210.pdf; API OF ANALYSIS-091410A.pdf; API OF ANALYSIS-091410B.pdf

Sorry Carl. I forgot to include you in this list.

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Safety starts with "S", but always begins with YOU!"

From: Larsen, Thurman
Sent: Saturday, October 30, 2010 11:17 AM
To: Van Horn, Kristen, NMENV
Cc: Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV
Subject: FINAL REPORT RESPONSE LETTERS for July 30 and August 2, 2010 API Overflows

Dear Kristen,

As per the agency's request in an e-mail from August 4, 2010, Western Refining (Gallup Refinery) is to submit a Final Report addressing the API Overflows issues that occurred on July 30 and August 2, 2010.
As per the agency's e-mail from August 4, 2010, a Final Report is due to the Agency by October 31, 2010. The above attachments include report (cover) letters addressing each overflow and confirmation sampling.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Safety starts with "S", but always begins with YOU!"



GALLUP

WNR
LISTED
NYSE

October 29, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East- Building 1
Santa Fe, New Mexico 87505
Attention: Ms Kristen Van Horn

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Attention: Mr. Carl J, Chavez

Reference: **CLEANUP STATUS and FINAL REPORT for Western Refining (Gallup Refinery) for the API OVERFLOW of July 30, 2010 and of August 2, 2010**
EPA ID NO. NMD000333211
HWB-GRCC-MISC

Dear Ms Van Horn and Mr. Chavez;

Please accept the following letter as a status report describing the API overflow events that occurred on July 30 and August 2, 2010. These two events even though separate should be treated as one event due to the chronological separation between the two and due to the same extent of Area of Contamination (AOC) that occurred. The following describes the cause of the problem, remedial and cleanup actions taken, and areas affected.

On July 30, 2010 a heavy rain came through the area. At approximately 1745 hrs due to this rain, the API began to overflow. The API continued to overflow until about 1905 hrs. (80 minutes). Notifications were made on July 31, 2010 to both NMED (HWB) and OCD as required. The overflow was localized to a small area around the API and the containment area surrounding the Baker Frac Tanks that are used for overflow. The API was operating properly at the time of the incident. Once the overflowed ceased to continue to overflow, a vacuum truck was deployed in order to remove contaminated liquids from the API and surrounding Baker Tank containment areas. The maximum design flow rating is 500 gpm. If during an excessive rain event that the influx to the API exceeds the design flow, water will be diverted to and overflow into the Baker Frac Tanks. The baker tank system is designed to accommodate these excessive rain events. During this event, the influx of stormwater exceeded the capacity of the API. The overflow frac tanks could only receive an estimated 50 to 60 % of the total volume of the frac tanks. Therefore, the API influent was forced out of the API vents. At the end of the event, all oily water mixtures within the berms, containment areas, and around the API were removed by the afternoon of Sunday, August 1, 2010, using a vacuum truck. It was estimated that approximately 230 bbls of oily-water mixture was released to the ground. It was further determined that approximately 205

bbbls of oil-water mixture was recovered during this overflow. No watercourse or overflows to the Aeration Ponds occurred during this event.

On August 2, 2010 another heavy rain event occurred that once again caused the API to overflow. The API began to overflow to the Baker Tanks from about 1825 to 2330 hrs (5 hrs, 5 minutes) The API continued to overflow until about 1905 hrs. (80 minutes). Once again notifications were made on August 3 to both NMED (HWB) and OCD as required. The overflow was localized to a small area around the API and the containment area surrounding the Baker Frac Tanks that are used for overflow. Once again, the API was operating properly at the time of the incident. Once the overflowed ceased a vacuum truck was deployed in order to remove contaminated liquids from the API and surrounding baker tank containment areas. The maximum design flow rating is 500 gpm. If during an excessive rain event that the influx to the API exceeds the design flow, water will be diverted to and overflow into the frac tanks. The baker tank system is designed to accommodate these excessive rain events. During this event, the influx of stormwater exceeded the capacity of the API. The overflow frac tanks could only receive an estimated 50 to 60 % of the total volume of the frac tanks. Therefore, the API influent was forced out of the API vents. All oily water liquid mixtures within the berms, containment areas, and around the API were removed by the afternoon of Sunday, August 4, 2010, using a vacuum truck. This time, it was estimated that approximately 159 bbls of oily-water mixture was released to the ground. It was determined that approximately 149 bbls of oil-water mixture was recovered during this overflow. No watercourse or overflows to the Aeration Ponds were impacted during this event.

Due to the grade around the API and around the containment areas leading to the frac tanks, the Area of Contamination (AOC) for both events was localized to include a small area around the API, and the containment areas around the Baker Tanks.

Sample Activity- Sample collection was performed using a clean stainless steel trowel. Using this trowel, the sampler digs to about 6 to 12 inches before collecting the sample. He would collect each sample location in a clean 8 oz glass jar that will be sent to Hall Environmental Laboratory. Decontamination procedures are implemented between sample locations using water with an Alconox solution followed by a de-ionized water rinse. After samples are collected, they are stored in a refrigerator prior to shipment to Hall Environmental Laboratories.

Initial Sampling- Initial sampling was conducted on July 22 which was prior to the event of July 30 and August 2, 2010. The sample locations were chosen based on a "Sampling Plan" (Figure 1) that has been previously submitted to and approved by the agency. These locations were chosen based on prior overflow events and due to the drainage around the API. The initial sampling results prior to the overflow at the API area indicated TPH levels above the 200 mg/kg limits established by the Agency. Samples were initially and analyzed for TPH (Method 418.1), BTEX (Method 8021B). These contaminated areas noted are as follows: API-E-2, API-E-3, API-W-5, BKT-E-7, BKT-S-8, BKT-W-9, CHN-C-10, CHN-C-11, NBT-N-13, and NBT-E-14.

Initial Remedial Activities- Remedial activities commenced on August 3 until August 18, 2010. Approximately 48 yards of contaminated soil was excavated from the API containment areas and

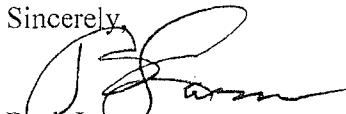
put in a roll-off bin pending shipment offsite disposal as hazardous waste under F037, F038, K049, and K051 waste codes.

Confirmation Sampling- Confirmation samples were collected on September 14, 2010. Confirmation sample locations around the API and Baker Tanks include locations API-N-1, API-E-2, API-E-3, API-S-4, API-W-5, API-W-6, BKT-E-7, BKT-S-8, and BKT-W-9. These samples were analyzed under Hall Environmental Laboratory report (# 1009668). Additional conformational sampling was also conducted on September 14 for the locations CHN-C-10, CHN-C-11, NBT-W-12, NBT-N-13, and NBT-E-14. A composite was also collected for analysis. Each an aliquot of soil from each location was collected in order to compile a composite for analysis. The composite sample was analyzed for the following parameters: RCI, TPH (Method 418.1), BTEX (Method 8021B), RCRA 8 Metals, Anions (F, Cl), Volatiles (Method 8260B), and Semi-volatiles (Method 8270). These samples were analyzed under Hall Environmental Laboratory report (#1009667).

Summary: All BTEX values for the sampling events are below the regulatory levels. In comparison between the initial sampling (July 22, Report # 1007915) and the confirmation sampling events (August 14, Report 1009667 / 1009668), there is a reduction in TPH values. However, based on analytical comparison between initial and confirmation sampling, additional remedial activities and confirmation sampling may be required.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery)

File:

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
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with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining	Contact Beck Larsen
Address I-40 / Exit 39	Telephone No.(505) 722-0258
Facility Name Western Refining (Gallup)	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Oily Water Mixture	Volume of Release 230 bbls	Volume Recovered 205 bbls
Source of Release API	Date and Hour of Occurrence 7/30/2010; 1745	Date and Hour of Discovery 7/30/2010; 1800
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (HWB) Christiansen/Van Horn/Monzeglio; OCD (Powell)	
By Whom? Beck Larsen	Date and Hour 7/31 (1315,1320,1324,1327 hrs); 8/2 (0745 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	


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

Describe Cause of Problem and Remedial Action Taken.* Refer to Initial C141 for description of event. This overflow event occurred prior to the overflow event of August 2, 2010. Oily-water liquids were removed around the API and containment areas using a vacuum truck. (Refer to Initial C-141 for further details.)

Describe Area Affected and Cleanup Action Taken.* The affected area or Area of Contamination (AOC) included around the API and within the containments of all five baker tanks. Cleanup activities began from August 3 through August 18, 2010 using excavation methodology. Samples were collected and analyzed. Approximately 48 cubic yards of contaminated soil around the API and baker tanks were excavated and put in roll-off bins for disposal as a hazardous waste. Additional excavation may be required. (Refer to Initial C-141 for further details.)

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 10/29/2010	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Larsen, Thurman

From: Van Horn, Kristen, NMENV [Kristen.VanHorn1@state.nm.us]
Sent: Wednesday, August 04, 2010 12:11 PM
To: Larsen, Thurman
Cc: Cobrain, Dave, NMENV; Monzeglio, Hope, NMENV
Subject: API Overflows

Beck, I got your message RE: the API overflow – you all are getting pounded by these storms. Continue to report any overflows by phone in accordance with the 24 hour reporting requirements of Section II.F.2 of the Post-Closure Care Permit (Permit) and continue to send me an email regarding each event(s) in accordance with Section II.F.2 (c) of the Permit (overflow, similar to the one you sent yesterday). A formal report must be submitted, which can be in letter format regarding each incident and the cleanup that details each incident separately (include all details, amount of soil removed, confirmation sampling, laboratory results, volume of liquids overflowed etc. Hope spoke to you today about what to include). The formal report must be submitted to NMED on or before Oct 31. Contact me if you have any questions.

Emails sent to me have been bouncing back to the sender. IT is working on it, but I may not get your message. Please cc: Katie Roberts and Dave Cobrain on messages. Thanks!

Kristen Van Horn
NMED Hazardous Waste Bureau
2905 Rodeo Park Drive East Building 1
Santa Fe, NM 87505
Phone: 505-476-6046

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

8/4/2010

Larsen, Thurman

From: Larsen, Thurman
Sent: Saturday, July 31, 2010 1:49 PM
To: Van Horn, Kristen, NMENV; 'Monzeglio, Hope, NMENV'
Subject: API Overflow NOTIFICATION

Dear Ms Van Horn and Ms Monzeglio,
This e-mail is to act as a notification of an API overflow incident that occurred yesterday, Friday, July 30.

At about 1745 hrs (545 PM) the API began to overflow due to a heavy rain. It continued to overflow until 1905 hrs (705PM). Crews were immediately dispatched to begin cleanup efforts as soon as the API stopped overflowing. It is estimated to be 5 bbls but the exact quantity is still under investigation.

Notifications: Verbal Notifications were given to the following:

- E-form Notification: submitted at 1315 hrs, Saturday, July 31
- Verbal (Msg): Brandon Christenson at 1320 hrs, Saturday, July 31, 2010
- Verbal (Msg): Kristen Van Horn at 1324 hrs, Saturday, July 31, 2010
- Verbal (Msg): Hope Monzeglio at 1327 hrs, Saturday, July 31, 2010
- Follow-up e-mail submitted to Kristen Van Horn and Hope Monzeglio at 1345 hrs, Saturday, July 31

If you need to contact me or require additional information, please feel free to contact me at (505) 722-0258
A C-141 will follow.

Sincerely,
Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery).

7/31/2010

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen	
Address I-40 / Exit 39	Telephone No.(505) 722-0258	
Facility Name Western Refining (Gallup)	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Oily Water Mixture	Volume of Release 230 bbls	Volume Recovered 205 bbls
Source of Release API	Date and Hour of Occurrence 7/30/2010; 1745	Date and Hour of Discovery 7/30/2010; 1800
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (HWB) Christiansen/Van Horn/Monzeglio; OCD (Powell)	
By Whom? Beck Larsen	Date and Hour 7/31 (1315,1320,1324,1327 hrs); 8/2 (0745 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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


Describe Cause of Problem and Remedial Action Taken.*

Due to a heavy rain event the API began overflow at 1745 hrs and ended at 1905 hrs. Vacuum Truck began vacuuming up the contaminated area. The API was operating properly at the time of the incident. The maximum API design flow rating is 500 gpm. If a rain event exceeds the design flow rating, any excess will be sent to the baker tanks. The baker tank system is designed to accommodate excessive rain events by allowing any API overflow volumes to be discharged into the five baker tanks. However, the influx of stormwater to the API exceeded the effluent from API. By the end of the event, the baker tank volume filled to 50-60 percent of total capacity.

Describe Area Affected and Cleanup Action Taken.*

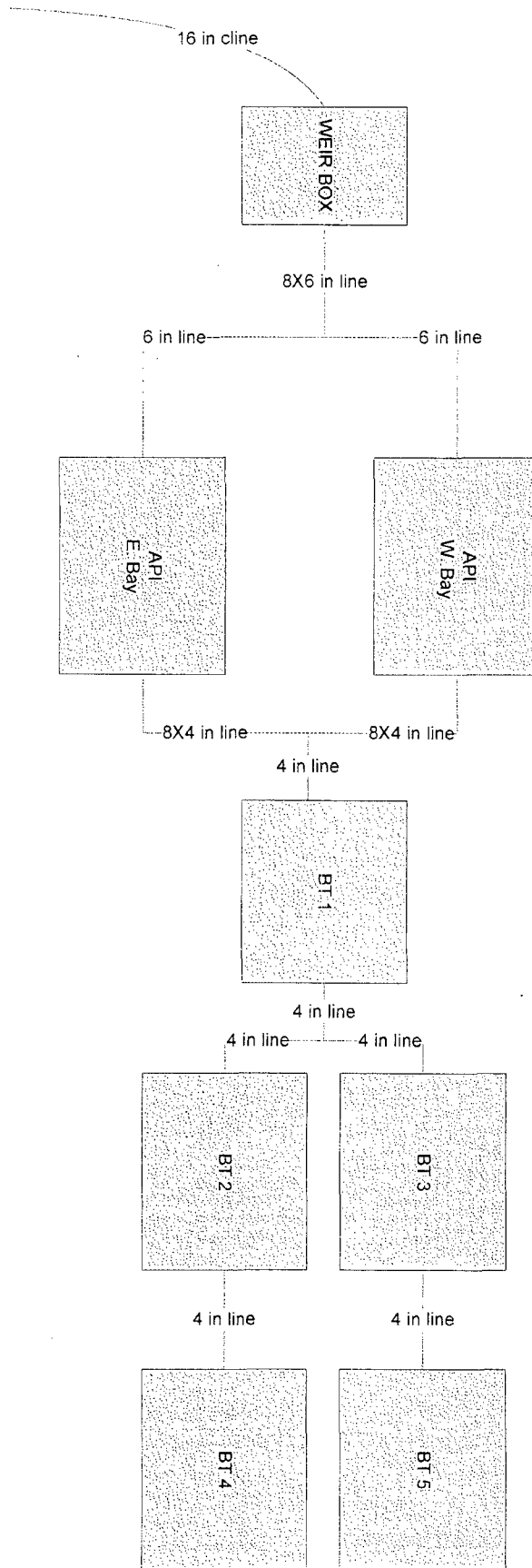
Around the API and within the containments of all five baker tanks. The vacuum truck is removing the oily water contamination within the berm and all baker tanks. This oily water mixture will be sent back to the API via a process sewer for oil/water separation. All aqueous liquids were removed by August 1, 2010.

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

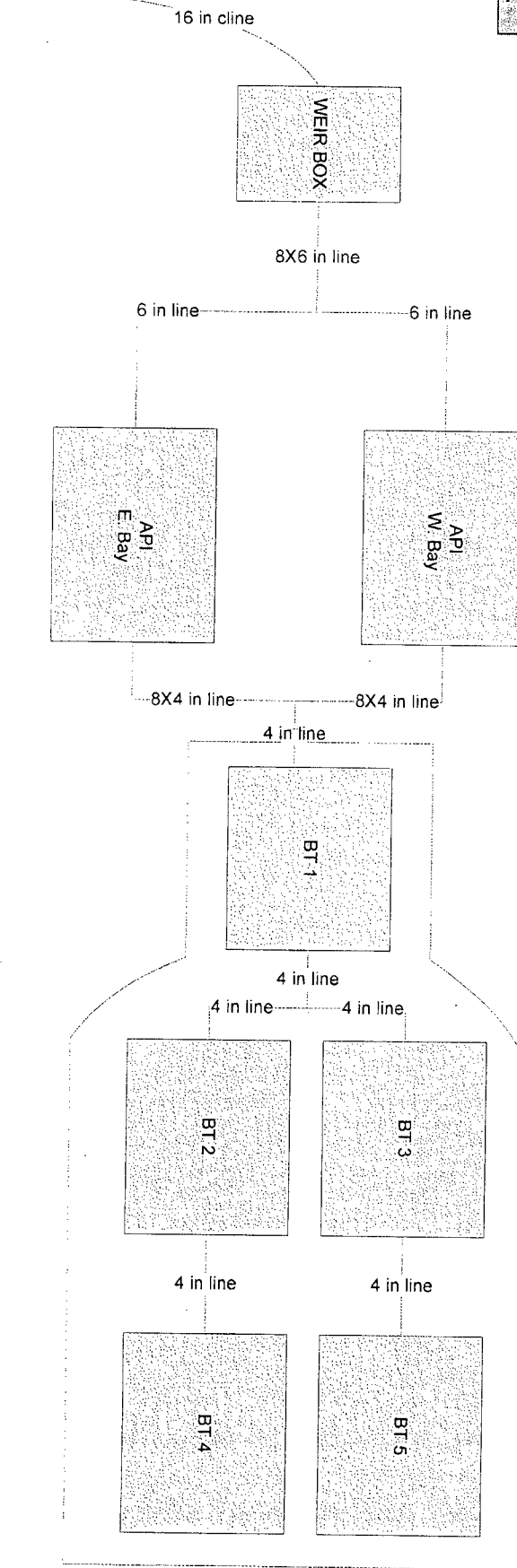
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Beck Larsen	Approved by District Supervisor:	
Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/13/2010 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

API PROCESS LINES



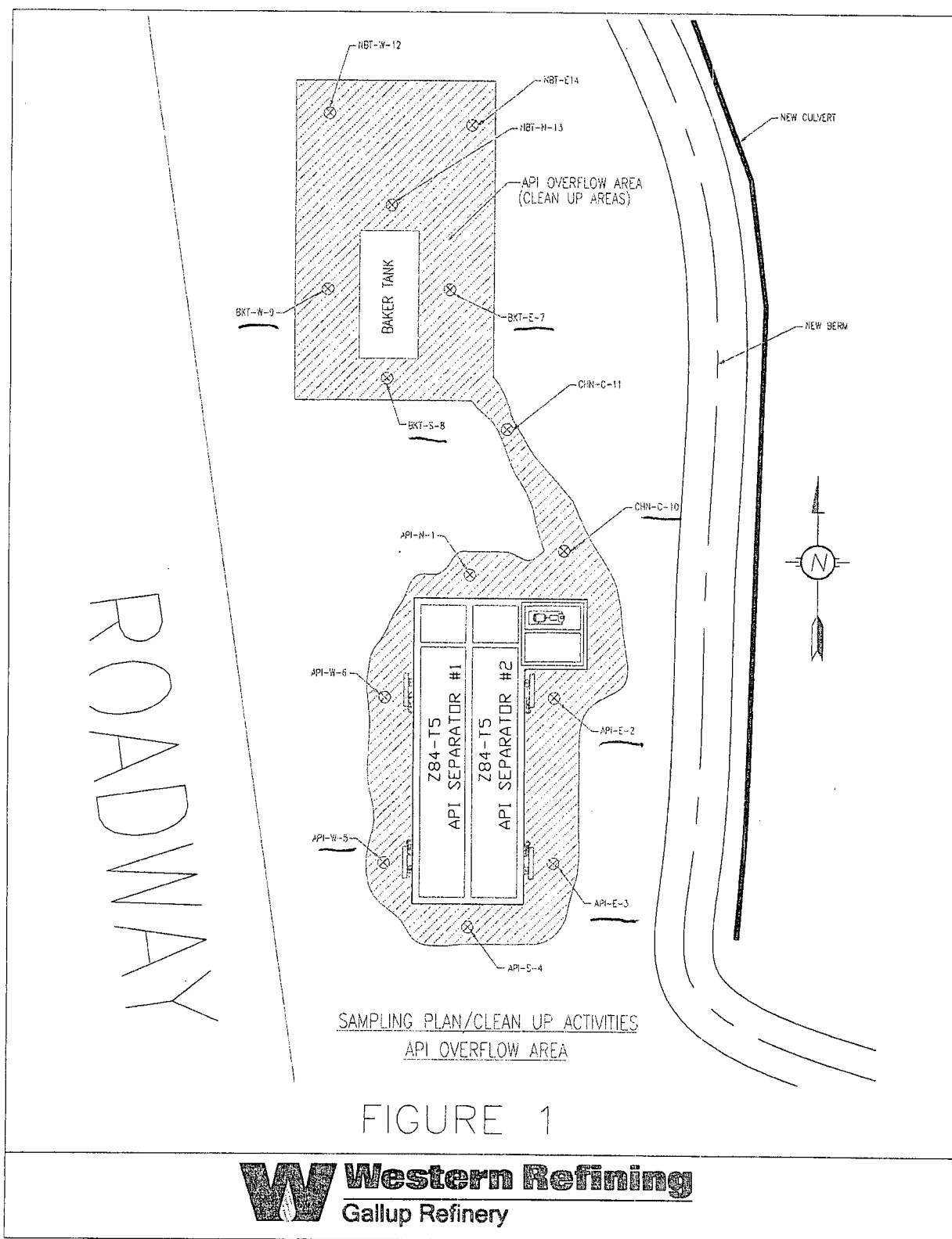
API CONTAINMENT AREAS



L=50 ft, W=19 ft
A1= 950 ft²

L= 215, W= 31 ft
A2=6665 ft²

AT= 7615 ft²



HALL ENVIRONMENTAL LABORATORY DATA SUMMARY

(API Spill on 07/3-8/2/10)

Sample ID: 1007915 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES	Units	API-N-1	API-E-2	API-E-3	APIS-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	API-Composite	CHN-C-10	CHN-C-11	NBT-W-12	NBT-N-13	NBT-E-14	MAXIMUM CONTAMINATION FOUND	NMED SOIL (2006) SCREENING LEVELS (mg/Kg)	NMED SOIL (2009) SCREENING LEVELS (mg/Kg)	CLEANUP STATUS
TPH	mg/Kg	0	550	3300	40	1900	110	1200	580	3500	925	530	220	0	4200	1100	5300	200	200	Contaminated
DRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	258 (25.8)	85.4	O.K.I.
MRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	252	57900	O.K.I.
GRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.8	128	385	O.K.I.
VOLATILES																	170	82	3610	O.K.I.
Benzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toluene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylbenzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xylene, Total	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Sample ID: 1009668 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES	Units	API-N-1	API-E-2	API-E-3	APIS-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	API-Composite	CHN-C-10	CHN-C-11	NBT-W-12	NBT-N-13	NBT-E-14	MAXIMUM CONTAMINATION FOUND	NMED SOIL (2006) SCREENING LEVELS (mg/Kg)	NMED SOIL (2009) SCREENING LEVELS (mg/Kg)	CLEANUP STATUS
TPH	mg/Kg	100	260	5700	40	980	49	2100	1100	1100	925	450	79	100	100	0	5700	200	200	Contaminated
DRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.79	258 (25.8)	85.4	O.K.I.
MRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3	252	57900	O.K.I.
GRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	128	385	O.K.I.
VOLATILES																	6.5	82	3610	O.K.I.
Benzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Toluene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethylbenzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Xylene, Total	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: BLANKS indicate a Non-detect (ND)

"Light Blue" color area highlights (DRO) REQUIRED, IF DRO > 200 ppm. 8270 method was to be run. However, Method 8270 (Semi-volatiles was run on ALL sample points)

"Yellow" color area highlights the maximum contaminant for a particular sample ID above

"Green" highlights the NMED Soil Screen Levels (mg/Kg) for Industrial Facilities for a particular contaminant

"Brown" (CLEANUP STATUS) indicates that cleanup was sufficient or insufficient based on NMED Soil Screening Levels for Industrial Facilities

NOTE: SCREENING GUIDELINES BASED ON AUGUST 2008 NMED TABLE

FIG 3



GALLUP

WNR
LISTED
NYSE

October 29, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East- Building 1
Santa Fe, New Mexico 87505
Attention: Ms Kristen Van Horn

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Attention: Mr. Carl J, Chavez

Reference: **CLEANUP STATUS and FINAL REPORT for Western Refining (Gallup Refinery) for the API OVERFLOW of July 30, 2010 and of August 2, 2010**
EPA ID NO. NMD000333211
HWB-GRCC-MISC

Dear Ms Van Horn and Mr. Chavez;

Please accept the following letter as a status report describing the API overflow events that occurred on July 30 and August 2, 2010. These two events even though separate should be treated as one event due to the chronological separation between the two and due to the same extent of Area of Contamination (AOC) that occurred. The following describes the cause of the problem, remedial and cleanup actions taken, and areas affected.

On July 30, 2010 a heavy rain came through the area. At approximately 1745 hrs due to this rain, the API began to overflow. The API continued to overflow until about 1905 hrs. (80 minutes). Notifications were made on July 31, 2010 to both NMED (HWB) and OCD as required. The overflow was localized to a small area around the API and the containment area surrounding the Baker Frac Tanks that are used for overflow. The API was operating properly at the time of the incident. Once the overflow ceased to continue to overflow, a vacuum truck was deployed in order to remove contaminated liquids from the API and surrounding Baker Tank containment areas. The maximum design flow rating is 500 gpm. If during an excessive rain event that the influx to the API exceeds the design flow, water will be diverted to and overflow into the Baker Frac Tanks. The baker tank system is designed to accommodate these excessive rain events. During this event, the influx of stormwater exceeded the capacity of the API. The overflow frac tanks could only receive an estimated 50 to 60 % of the total volume of the frac tanks. Therefore, the API influent was forced out of the API vents. At the end of the event, all oily water mixtures within the berms, containment areas, and around the API were removed by the afternoon of Sunday, August 1, 2010, using a vacuum truck. It was estimated that approximately 230 bbls of oily-water mixture was released to the ground. It was further determined that approximately 205

bbbls of oil-water mixture was recovered during this overflow. No watercourse or overflows to the Aeration Ponds occurred during this event.

On August 2, 2010 another heavy rain event occurred that once again caused the API to overflow. The API began to overflow to the Baker Tanks from about 1825 to 2330 hrs (5 hrs, 5 minutes) The API continued to overflow until about 1905 hrs. (80 minutes). Once again notifications were made on August 3 to both NMED (HWB) and OCD as required. The overflow was localized to a small area around the API and the containment area surrounding the Baker Frac Tanks that are used for overflow. Once again, the API was operating properly at the time of the incident. Once the overflowed ceased a vacuum truck was deployed in order to remove contaminated liquids from the API and surrounding baker tank containment areas. The maximum design flow rating is 500 gpm. If during an excessive rain event that the influx to the API exceeds the design flow, water will be diverted to and overflow into the frac tanks. The baker tank system is designed to accommodate these excessive rain events. During this event, the influx of stormwater exceeded the capacity of the API. The overflow frac tanks could only receive an estimated 50 to 60 % of the total volume of the frac tanks. Therefore, the API influent was forced out of the API vents. All oily water liquid mixtures within the berms, containment areas, and around the API were removed by the afternoon of Sunday, August 4, 2010, using a vacuum truck. This time, it was estimated that approximately 159 bbbls of oily-water mixture was released to the ground. It was determined that approximately 149 bbbls of oil-water mixture was recovered during this overflow. No watercourse or overflows to the Aeration Ponds were impacted during this event.

Due to the grade around the API and around the containment areas leading to the frac tanks, the Area of Contamination (AOC) for both events was localized to include a small area around the API, and the containment areas around the Baker Tanks.

Sample Activity- Sample collection was performed using a clean stainless steel trowel. Using this trowel, the sampler digs to about 6 to 12 inches before collecting the sample. He would collect each sample location in a clean 8 oz glass jar that will be sent to Hall Environmental Laboratory. Decontamination procedures are implemented between sample locations using water with an Alconox solution followed by a de-ionized water rinse. After samples are collected, they are stored in a refrigerator prior to shipment to Hall Environmental Laboratories.

Initial Sampling- Initial sampling was conducted on July 22 which was prior to the event of July 30 and August 2, 2010. The sample locations were chosen based on a "Sampling Plan" (Figure 1) that has been previously submitted to and approved by the agency. These locations were chosen based on prior overflow events and due to the drainage around the API. The initial sampling results prior to the overflow at the API area indicated TPH levels above the 200 mg/kg limits established by the Agency. Samples were initially and analyzed for TPH (Method 418.1), BTEX (Method 8021B). These contaminated areas noted are as follows: API-E-2, API-E-3, API-W-5, BKT-E-7, BKT-S-8, BKT-W-9, CHN-C-10, CHN-C-11, NBT-N-13, and NBT-E-14.

Initial Remedial Activities- Remedial activities commenced on August 3 until August 18, 2010. Approximately 48 yards of contaminated soil was excavated from the API containment areas and

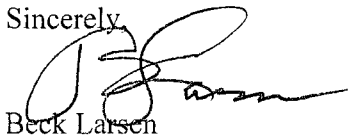
put in a roll-off bin pending shipment offsite disposal as hazardous waste under F037, F038, K049, and K051 waste codes.

Confirmation Sampling- Confirmation samples were collected on September 14, 2010. Confirmation sample locations around the API and Baker Tanks include locations API-N-1, API-E-2, API-E-3, API-S-4, API-W-5, API-W-6, BKT-E-7, BKT-S-8, and BKT-W-9. These samples were analyzed under Hall Environmental Laboratory report (# 1009668). Additional conformational sampling was also conducted on September 14 for the locations CHN-C-10, CHN-C-11, NBT-W-12, NBT-N-13, and NBT-E-14. A composite was also collected for analysis. Each an aliquot of soil from each location was collected in order to compile a composite for analysis. The composite sample was analyzed for the following parameters: RCI, TPH (Method 418.1), BTEX (Method 8021B), RCRA 8 Metals, Anions (F, Cl), Volatiles (Method 8260B), and Semi-volatiles (Method 8270). These samples were analyzed under Hall Environmental Laboratory report (#1009667).

Summary: All BTEX values for the sampling events are below the regulatory levels. In comparison between the initial sampling (July 22, Report # 1007915) and the confirmation sampling events (August 14, Report 1009667 / 1009668), there is a reduction in TPH values. However, based on analytical comparison between initial and confirmation sampling, additional remedial activities and confirmation sampling may be required.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery)

File:

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining	Contact Beck Larsen
Address I-40 / Exit 39	Telephone No.(505) 722-0258
Facility Name Western Refining (Gallup)	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Oily Water Mixture	Volume of Release 159 bbls	Volume Recovered 149 bbls
Source of Release API	Date and Hour of Occurrence 8/02/2010; 1725	Date and Hour of Discovery 8/02/2010; 1800
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (HWB) Christiansen/Van Horn/Monzeglio; OCD (Powell)	
By Whom? Beck Larsen	Date and Hour 8/3 (1010 (Msg), 1012 (Msg), 1020 hrs); 8/3 (1028 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	


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

Describe Cause of Problem and Remedial Action Taken.* Refer to Initial C-141 for description of event. This overflow occurred immediately after the overflow that occurred on July 30, 2010. Oily-water liquids were removed around the API and containment areas of all five baker tanks. This oily water mixture will be sent back to the API via a process sewer for oil/water separation. All aqueous liquids were removed by August 4, 2010. Refer to Initial C-141 for further details.

Describe Area Affected and Cleanup Action Taken.* The Area of Contamination (AOC) included the area surrounding the API and the containment around the frac tanks. Cleanup activities began from august 3 through august 18, 2010 using excavation methodology. Samples were collected and analyzed. Approximately 48 cubic yards of contaminated soil around the API and baker tanks were excavated and put in roll-off bins for disposal as a hazardous waste. Additional excavation and sampling may be required. Refer to Initial C-141 for further details.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 10/29/2010	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

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By Whom? Beck Larsen	Date and Hour 8/3 (1010 (Msg), 1012 (Msg), 1020 hrs); 8/3 (1028 hrs)	
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Describe Area Affected and Cleanup Action Taken.*

Around the API and within the containments of all five baker tanks. The vacuum truck is removing the oily water contamination within the berm and all baker tanks. This oily water mixture will be sent back to the API via a process sewer for oil/water separation. All aqueous liquids were removed by August 4, 2010.

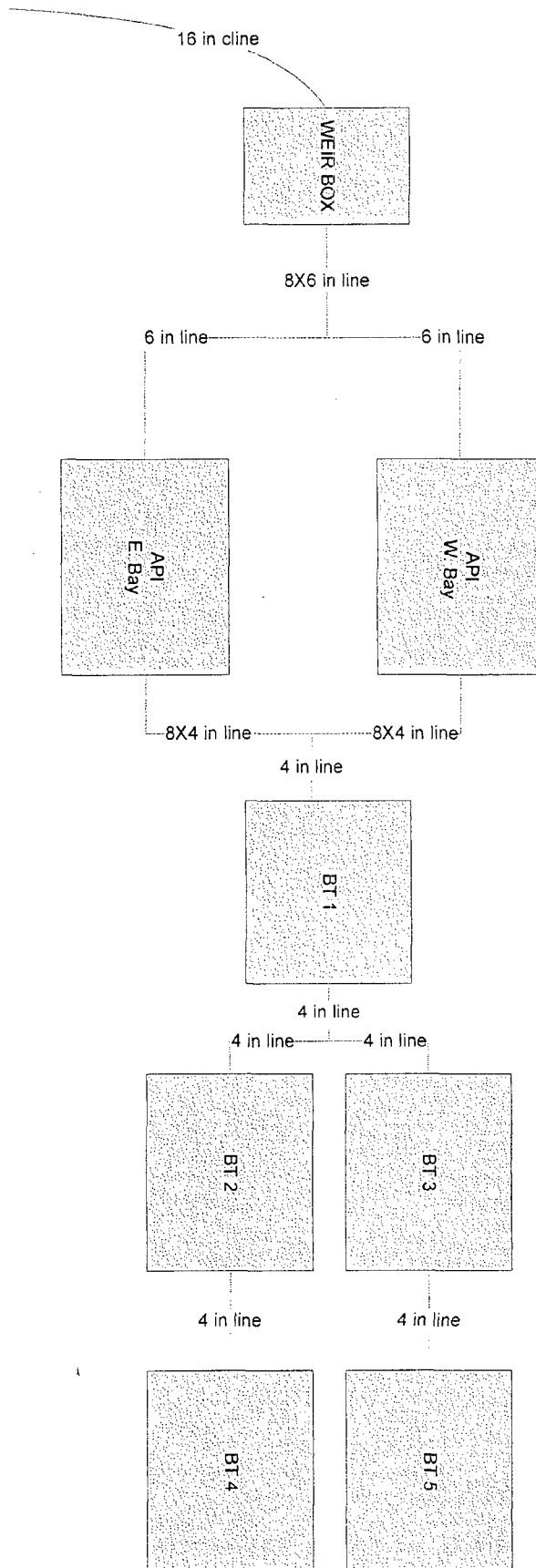
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OIL CONSERVATION DIVISION

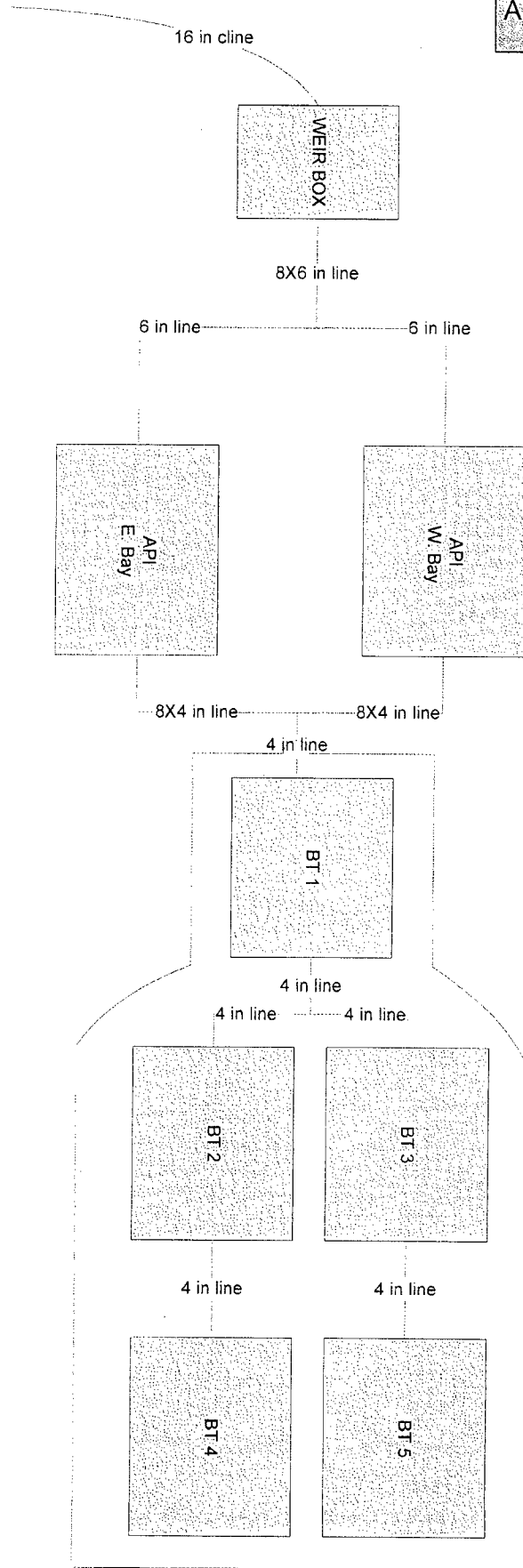
Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8/13/2010	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

API PROCESS LINES



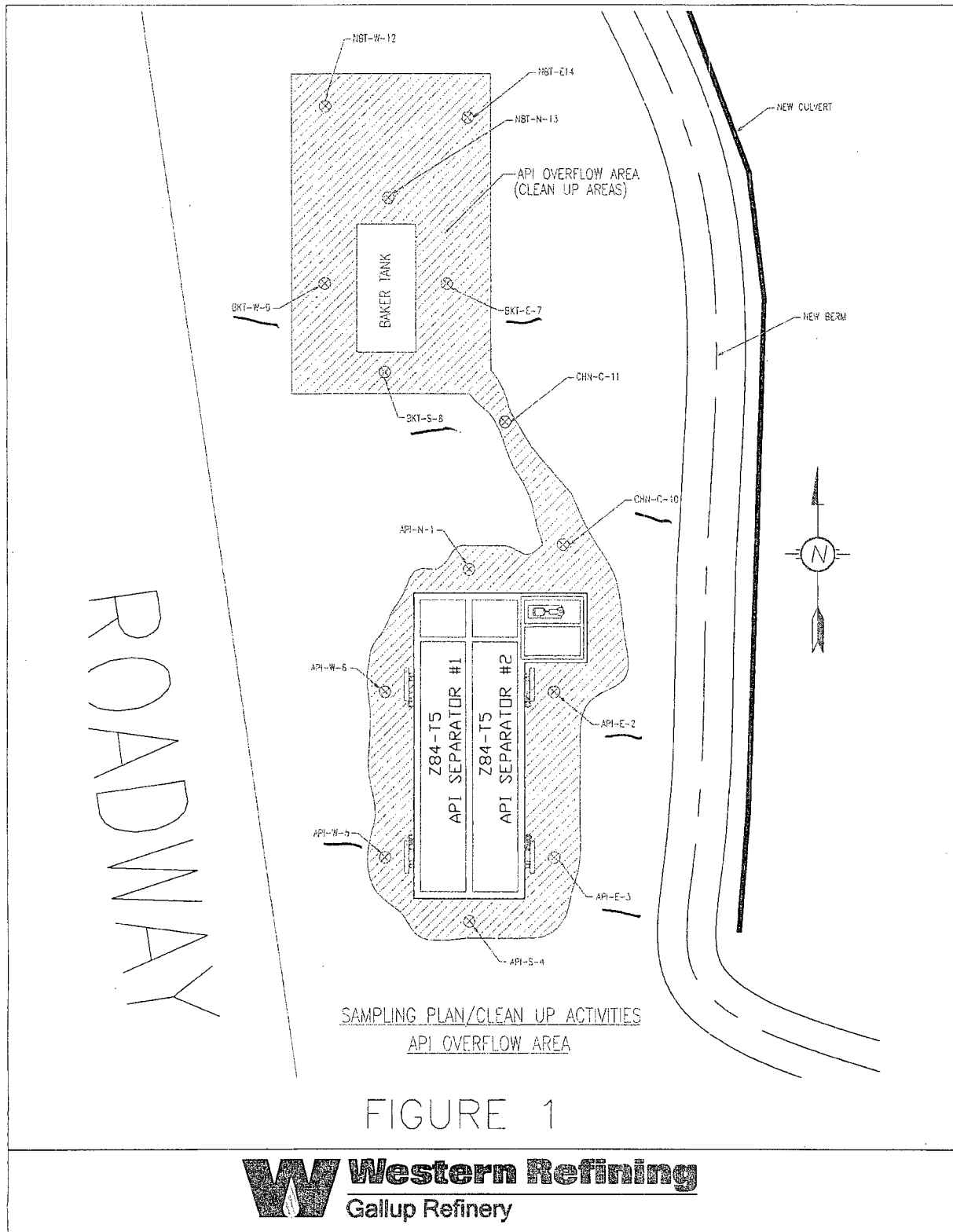
API CONTAINMENT AREAS



L=50 ft, W=19 ft
A1= 950 ft²

L= 215, W= 31 ft
A2=6665 ft²

AT= 7615 ft²



HALL ENVIRONMENTAL LABORATORY DATA SUMMARY

(API Spill on 07/3-8/2/10)

Sample ID: 1007915 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES	Units	API-N-1	API-E-1	API-E-2	API-E-3	API-S-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	API-Composite	CHN-C-10	CHN-C-11	NBT-W-12	NBT-N-13	NBT-E-14	MAXIMUM CONTAMINATION FOUND	NMED SOIL (2006) SCREENING LEVELS (mg/Kg)	NMED SOIL (2009) SCREENING LEVELS (mg/Kg)	CLEANUP STATUS
TPH	mg/Kg	0	5300	0	0	40	1900	110	1200	680	3900	925	330	220	0	6200	1100	5300	200	200	Contaminated
DRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.8	258 (25.8)	85.4	O.K.I.
MRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	252	57900	O.K.I.
GRO	mg/Kg	0	0	0	0	0	0.14	0	0	0	0.33	0	0	0	0	0	0	2.8	128	385	O.K.I.
Benzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170	82	3610	O.K.I.
Toluene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ethylbenzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Xylene, Total	mg/Kg	0	0	0	0	0	0.44	0	0	0	3.1	0.81	0	0	0	0	0				

Sample ID: 1009668 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES	Units	API-N-1	API-E-1	API-E-2	API-E-3	API-S-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	API-Composite	CHN-C-10	CHN-C-11	NBT-W-12	NBT-N-13	NBT-E-14	MAXIMUM CONTAMINATION FOUND	NMED SOIL (2006) SCREENING LEVELS (mg/Kg)	NMED SOIL (2009) SCREENING LEVELS (mg/Kg)	CLEANUP STATUS
TPH	mg/Kg	100	260	5700	0	40	990	49	2100	1100	1100	No Composite	450	79	0	100	0	5700	200	200	Contaminated
DRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.79	258 (25.8)	85.4	O.K.I.
MRO	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3	252	57900	O.K.I.
GRO	mg/Kg	0	0	0	0	0	0.13	0	0	0	0	0	0	0	0	0	0	1.2	128	385	O.K.I.
Benzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.5	82	3610	O.K.I.
Toluene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Ethylbenzene	mg/Kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Xylene, Total	mg/Kg	0	0	0	0	0	0.13	0	0	0	0	0	0	0	0	0	0				

NOTE: BLANKS indicate a Non-detect (ND).

* "Light Blue" color area highlights (DRO) REQUIRED; IF DRO > 200 (ppm), Method 8270 (Semi-volatiles) was run on ALL sample points.
 * "Yellow" color area highlights the maximum contaminant for a particular sample ID above.
 * "Green" highlights the NMED Soil Screen Levels (mg/Kg) for Industrial Facilities for a particular contaminant.
 * "Brown" (CLEANUP STATUS) indicates that Cleanup was sufficient or insufficient based on NMED Soil Screening Levels for Industrial Facilities.

NOTE: SCREENING GUIDELINES BASED ON AUGUST 2009 NMED TABLE



COVER LETTER

Tuesday, August 10, 2010

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sample Points & Roll Offs

Order No.: 1007915

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 16 sample(s) on 7/26/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	API-N-1
Lab Order:	1007915	Collection Date:	7/22/2010 8:30:00 AM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-01	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/28/2010 1:56:02 PM
Benzene	ND	0.050		mg/Kg	1	7/28/2010 1:56:02 PM
Toluene	ND	0.050		mg/Kg	1	7/28/2010 1:56:02 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/28/2010 1:56:02 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/28/2010 1:56:02 PM
Surr: 4-Bromofluorobenzene	125	64.7-120	S	%REC	1	7/28/2010 1:56:02 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-02

Client Sample ID: API-E-2
Collection Date: 7/22/2010 8:45:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.20		mg/Kg	2	7/31/2010 7:28:50 AM
Benzene	ND	0.10		mg/Kg	2	7/31/2010 7:28:50 AM
Toluene	ND	0.10		mg/Kg	2	7/31/2010 7:28:50 AM
Ethylbenzene	ND	0.10		mg/Kg	2	7/31/2010 7:28:50 AM
Xylenes, Total	ND	0.20		mg/Kg	2	7/31/2010 7:28:50 AM
Surr: 4-Bromofluorobenzene	140	64.7-120	S	%REC	2	7/31/2010 7:28:50 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	550	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	API-E-3
Lab Order:	1007915	Collection Date:	7/22/2010 8:55:00 AM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-03	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	7/31/2010 8:59:29 AM
Benzene	1.8	0.50		mg/Kg	10	7/31/2010 8:59:29 AM
Toluene	3.2	0.50		mg/Kg	10	7/31/2010 8:59:29 AM
Ethylbenzene	2.8	0.50		mg/Kg	10	7/31/2010 8:59:29 AM
Xylenes, Total	13	1.0		mg/Kg	10	7/31/2010 8:59:29 AM
Surr: 4-Bromofluorobenzene	132	64.7-120	S	%REC	10	7/31/2010 8:59:29 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	5300	200		mg/Kg	10	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-04

Client Sample ID: API-S-4
Collection Date: 7/22/2010 9:15:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/31/2010 9:29:40 AM
Benzene	ND	0.050		mg/Kg	1	7/31/2010 9:29:40 AM
Toluene	ND	0.050		mg/Kg	1	7/31/2010 9:29:40 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2010 9:29:40 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/31/2010 9:29:40 AM
Surr: 4-Bromofluorobenzene	118	64.7-120		%REC	1	7/31/2010 9:29:40 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	30	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	API-W-5
Lab Order:	1007915	Collection Date:	7/22/2010 9:21:00 AM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-05	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.20		mg/Kg	2	7/31/2010 9:59:40 AM
Benzene	ND	0.10		mg/Kg	2	7/31/2010 9:59:40 AM
Toluene	ND	0.10		mg/Kg	2	7/31/2010 9:59:40 AM
Ethylbenzene	0.14	0.10		mg/Kg	2	7/31/2010 9:59:40 AM
Xylenes, Total	0.44	0.20		mg/Kg	2	7/31/2010 9:59:40 AM
Surr: 4-Bromofluorobenzene	1.17	64.7-120		%REC	2	7/31/2010 9:59:40 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	1900	200		mg/Kg	10	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-06

Client Sample ID: API-W-6
Collection Date: 7/22/2010 9:37:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/31/2010 10:29:52 AM
Benzene	ND	0.050		mg/Kg	1	7/31/2010 10:29:52 AM
Toluene	ND	0.050		mg/Kg	1	7/31/2010 10:29:52 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/31/2010 10:29:52 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/31/2010 10:29:52 AM
Surr: 4-Bromofluorobenzene	114	64.7-120		%REC	1	7/31/2010 10:29:52 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	110	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-07

Client Sample ID: BKT-E-7
Collection Date: 7/22/2010 9:52:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.20		mg/Kg	2	8/2/2010 3:45:08 PM
Benzene	ND	0.10		mg/Kg	2	8/2/2010 3:45:08 PM
Toluene	ND	0.10		mg/Kg	2	8/2/2010 3:45:08 PM
Ethylbenzene	ND	0.10		mg/Kg	2	8/2/2010 3:45:08 PM
Xylenes, Total	ND	0.20		mg/Kg	2	8/2/2010 3:45:08 PM
Surr: 4-Bromofluorobenzene	124	64.7-120	S	%REC	2	8/2/2010 3:45:08 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	1200	100		mg/Kg	5	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	BKT-S-8
Lab Order:	1007915	Collection Date:	7/22/2010 10:15:00 AM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-08	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.20		mg/Kg	2	7/31/2010 11:30:35 AM
Benzene	ND	0.10		mg/Kg	2	7/31/2010 11:30:35 AM
Toluene	1.0	0.10		mg/Kg	2	7/31/2010 11:30:35 AM
Ethylbenzene	0.26	0.10		mg/Kg	2	7/31/2010 11:30:35 AM
Xylenes, Total	3.1	0.20		mg/Kg	2	7/31/2010 11:30:35 AM
Surr: 4-Bromofluorobenzene	124	64.7-120	S	%REC	2	7/31/2010 11:30:35 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	580	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-09

Client Sample ID: BKT-W-9
Collection Date: 7/22/2010 12:30:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	7/29/2010 2:37:39 PM
Benzene	ND	0.25		mg/Kg	5	7/29/2010 2:37:39 PM
Toluene	0.33	0.25		mg/Kg	5	7/29/2010 2:37:39 PM
Ethylbenzene	ND	0.25		mg/Kg	5	7/29/2010 2:37:39 PM
Xylenes, Total	3.1	0.50		mg/Kg	5	7/29/2010 2:37:39 PM
Surr: 4-Bromofluorobenzene	127	64.7-120	S	%REC	5	7/29/2010 2:37:39 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	3900	200		mg/Kg	10	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-10

Client Sample ID: CHN-C-10
Collection Date: 7/22/2010 1:25:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/29/2010 3:07:49 PM
Benzene	ND	0.050		mg/Kg	1	7/29/2010 3:07:49 PM
Toluene	ND	0.050		mg/Kg	1	7/29/2010 3:07:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/29/2010 3:07:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/29/2010 3:07:49 PM
Surr: 4-Bromofluorobenzene	157	64.7-120	S	%REC	1	7/29/2010 3:07:49 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	330	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-11

Client Sample ID: CHN-C-11
Collection Date: 7/22/2010 1:35:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/29/2010 3:38:12 PM
Benzene	ND	0.050		mg/Kg	1	7/29/2010 3:38:12 PM
Toluene	ND	0.050		mg/Kg	1	7/29/2010 3:38:12 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/29/2010 3:38:12 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/29/2010 3:38:12 PM
Surr: 4-Bromofluorobenzene	129	64.7-120	S	%REC	1	7/29/2010 3:38:12 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	220	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-12

Client Sample ID: NBT-W-12
Collection Date: 7/22/2010 2:15:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	7/29/2010 4:08:35 PM
Benzene	ND	0.050		mg/Kg	1	7/29/2010 4:08:35 PM
Toluene	ND	0.050		mg/Kg	1	7/29/2010 4:08:35 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/29/2010 4:08:35 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/29/2010 4:08:35 PM
Surr: 4-Bromofluorobenzene	130	64.7-120	S	%REC	1	7/29/2010 4:08:35 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	NBT-N-13
Lab Order:	1007915	Collection Date:	7/22/2010 2:30:00 PM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-13	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	7/29/2010 4:38:51 PM
Benzene	1.0	0.50		mg/Kg	10	7/29/2010 4:38:51 PM
Toluene	28	0.50		mg/Kg	10	7/29/2010 4:38:51 PM
Ethylbenzene	2.2	0.50		mg/Kg	10	7/29/2010 4:38:51 PM
Xylenes, Total	170	5.0		mg/Kg	50	7/31/2010 12:00:43 PM
Surr: 4-Bromofluorobenzene	113	64.7-120		%REC	50	7/31/2010 12:00:43 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	6200	200		mg/Kg	10	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-14

Client Sample ID: NBT-E-14
Collection Date: 7/22/2010 2:45:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	7/29/2010 5:09:03 PM
Benzene	ND	0.25		mg/Kg	5	7/29/2010 5:09:03 PM
Toluene	1.9	0.25		mg/Kg	5	7/29/2010 5:09:03 PM
Ethylbenzene	0.60	0.25		mg/Kg	5	7/29/2010 5:09:03 PM
Xylenes, Total	5.8	0.50		mg/Kg	5	7/29/2010 5:09:03 PM
Surr: 4-Bromofluorobenzene	141	64.7-120	S	%REC	5	7/29/2010 5:09:03 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	1100	100		mg/Kg	5	7/29/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	API-Composite
Lab Order:	1007915	Collection Date:	7/22/2010 3:00:00 PM
Project:	API Overflow Sample Points & Roll Offs	Date Received:	7/26/2010
Lab ID:	1007915-15	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	730	10		mg/Kg	1	8/3/2010 1:58:55 PM
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	8/3/2010 1:58:55 PM
Surr: DNOP	106	61.7-135		%REC	1	8/3/2010 1:58:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	85	25		mg/Kg	5	7/29/2010 5:39:32 PM
Surr: BFB	164	55.2-107	S	%REC	5	7/29/2010 5:39:32 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	7/29/2010 5:39:32 PM
Benzene	ND	0.25		mg/Kg	5	7/29/2010 5:39:32 PM
Toluene	0.35	0.25		mg/Kg	5	7/29/2010 5:39:32 PM
Ethylbenzene	ND	0.25		mg/Kg	5	7/29/2010 5:39:32 PM
Xylenes, Total	0.81	0.50		mg/Kg	5	7/29/2010 5:39:32 PM
Surr: 4-Bromofluorobenzene	131	64.7-120	S	%REC	5	7/29/2010 5:39:32 PM
EPA METHOD 300.0: ANIONS						Analyst: LJB
Fluoride	14	3.0		mg/Kg	10	7/31/2010 8:47:27 PM
Chloride	49	15		mg/Kg	10	7/31/2010 8:47:27 PM
EPA METHOD 7471: MERCURY						Analyst: IC
Mercury	ND	0.033		mg/Kg	1	8/4/2010 3:47:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	4.5	2.5		mg/Kg	1	8/3/2010 2:25:05 PM
Barium	440	1.0		mg/Kg	10	8/5/2010 10:14:18 AM
Cadmium	ND	0.10		mg/Kg	1	8/3/2010 2:25:05 PM
Chromium	5.8	0.30		mg/Kg	1	8/3/2010 2:25:05 PM
Lead	1.2	0.25		mg/Kg	1	8/3/2010 2:25:05 PM
Selenium	ND	2.5		mg/Kg	1	8/3/2010 2:25:05 PM
Silver	ND	0.25		mg/Kg	1	8/3/2010 2:25:05 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Acenaphthylene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Aniline	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Anthracene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Azobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1007915
 Project: API Overflow Sample Points & Roll Offs
 Lab ID: 1007915-15

Client Sample ID: API-Composite
 Collection Date: 7/22/2010 3:00:00 PM
 Date Received: 7/26/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Benzoic acid	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Carbazole	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/29/2010 11:55:13 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Chrysene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/29/2010 11:55:13 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Dibenzofuran	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/29/2010 11:55:13 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/29/2010 11:55:13 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/29/2010 11:55:13 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/29/2010 11:55:13 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
Fluoranthene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Fluorene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Hexachloroethane	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Isophorone	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-15

Client Sample ID: API-Composite
Collection Date: 7/22/2010 3:00:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Methylnaphthalene	0.21	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
2-Methylphenol	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Naphthalene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
4-Nitroaniline	ND	0.25		mg/Kg	1	7/29/2010 11:55:13 AM
Nitrobenzene	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
4-Nitrophenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/29/2010 11:55:13 AM
Phenanthrene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Phenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Pyrene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Pyridine	ND	0.50		mg/Kg	1	7/29/2010 11:55:13 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/29/2010 11:55:13 AM
Surr: 2,4,6-Tribromophenol	60.4	28.4-132		%REC	1	7/29/2010 11:55:13 AM
Surr: 2-Fluorobiphenyl	57.3	37.4-123		%REC	1	7/29/2010 11:55:13 AM
Surr: 2-Fluorophenol	63.2	28.6-110		%REC	1	7/29/2010 11:55:13 AM
Surr: 4-Terphenyl-d14	44.6	29.2-111		%REC	1	7/29/2010 11:55:13 AM
Surr: Nitrobenzene-d5	58.8	33.8-126		%REC	1	7/29/2010 11:55:13 AM
Surr: Phenol-d5	62.8	35.3-110		%REC	1	7/29/2010 11:55:13 AM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Toluene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Ethylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Methyl tert-butyl ether (MTBE)	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2,4-Trimethylbenzene	0.44	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,3,5-Trimethylbenzene	0.31	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2-Dichloroethane (EDC)	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2-Dibromoethane (EDB)	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Naphthalene	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
1-Methylnaphthalene	ND	1.0		mg/Kg	5	8/5/2010 11:22:26 AM
2-Methylnaphthalene	ND	1.0		mg/Kg	5	8/5/2010 11:22:26 AM
Acetone	ND	3.8		mg/Kg	5	8/5/2010 11:22:26 AM
Bromobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-15

Client Sample ID: API-Composite
Collection Date: 7/22/2010 3:00:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Bromodichloromethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Bromoform	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Bromomethane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
2-Butanone	ND	2.5		mg/Kg	5	8/5/2010 11:22:26 AM
Carbon disulfide	ND	2.5		mg/Kg	5	8/5/2010 11:22:26 AM
Carbon tetrachloride	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Chlorobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Chloroethane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Chloroform	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Chloromethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
2-Chlorotoluene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
4-Chlorotoluene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
cis-1,2-DCE	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
cis-1,3-Dichloropropene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2-Dibromo-3-chloropropane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Dibromochloromethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Dibromomethane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
1,2-Dichlorobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,3-Dichlorobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,4-Dichlorobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Dichlorodifluoromethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,1-Dichloroethane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
1,1-Dichloroethene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2-Dichloropropane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,3-Dichloropropane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
2,2-Dichloropropane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
1,1-Dichloropropene	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Hexachlorobutadiene	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
2-Hexanone	ND	2.5		mg/Kg	5	8/5/2010 11:22:26 AM
Isopropylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
4-Isopropyltoluene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
4-Methyl-2-pentanone	ND	2.5		mg/Kg	5	8/5/2010 11:22:26 AM
Methylene chloride	ND	0.75		mg/Kg	5	8/5/2010 11:22:26 AM
n-Butylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
n-Propylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
sec-Butylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Styrene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
tert-Butylbenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,1,1,2-Tetrachloroethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,1,2,2-Tetrachloroethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Tetrachloroethene (PCE)	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-15

Client Sample ID: API-Composite
Collection Date: 7/22/2010 3:00:00 PM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
trans-1,2-DCE	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
trans-1,3-Dichloropropene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2,3-Trichlorobenzene	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
1,2,4-Trichlorobenzene	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,1,1-Trichloroethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,1,2-Trichloroethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Trichloroethene (TCE)	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Trichlorofluoromethane	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
1,2,3-Trichloropropane	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Vinyl chloride	ND	0.25		mg/Kg	5	8/5/2010 11:22:26 AM
Xylenes, Total	ND	0.50		mg/Kg	5	8/5/2010 11:22:26 AM
Surr: 1,2-Dichloroethane-d4	103	60.1-112		%REC	5	8/5/2010 11:22:26 AM
Surr: 4-Bromofluorobenzene	104	79.4-113		%REC	5	8/5/2010 11:22:26 AM
Surr: Dibromofluoromethane	109	70.2-111		%REC	5	8/5/2010 11:22:26 AM
Surr: Toluene-d8	112	78.4-110	S	%REC	5	8/5/2010 11:22:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup Client Sample ID: API-Rolloff Bins
 Lab Order: 1007915 Collection Date: 7/22/2010 8:00:00 AM
 Project: API Overflow Sample Points & Roll Offs Date Received: 7/26/2010
 Lab ID: 1007915-16 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: JB
Diesel Range Organics (DRO)	3800	200		mg/Kg	20	8/3/2010 3:06:55 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	8/3/2010 3:06:55 PM
Surr: DNOP	0	61.7-135	S	%REC	20	8/3/2010 3:06:55 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/29/2010 6:09:50 PM
Surr: BFB	124	55.2-107	S	%REC	10	7/29/2010 6:09:50 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	7/29/2010 6:09:50 PM
Benzene	ND	0.50		mg/Kg	10	7/29/2010 6:09:50 PM
Toluene	ND	0.50		mg/Kg	10	7/29/2010 6:09:50 PM
Ethylbenzene	ND	0.50		mg/Kg	10	7/29/2010 6:09:50 PM
Xylenes, Total	ND	1.0		mg/Kg	10	7/29/2010 6:09:50 PM
Surr: 4-Bromofluorobenzene	117	64.7-120		%REC	10	7/29/2010 6:09:50 PM
EPA METHOD 300.0: ANIONS						Analyst: LJB
Fluoride	13	3.0		mg/Kg	10	7/31/2010 9:04:51 PM
Chloride	1000	30		mg/Kg	20	8/1/2010 7:27:31 PM
EPA METHOD 7471: MERCURY						Analyst: IC
Mercury	0.051	0.033		mg/Kg	1	8/4/2010 3:49:32 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	2.8	2.5		mg/Kg	1	8/3/2010 2:32:26 PM
Barium	460	1.0		mg/Kg	10	8/5/2010 10:16:41 AM
Cadmium	ND	0.10		mg/Kg	1	8/3/2010 2:32:26 PM
Chromium	10	0.30		mg/Kg	1	8/3/2010 2:32:26 PM
Lead	5.2	0.25		mg/Kg	1	8/3/2010 2:32:26 PM
Selenium	ND	2.5		mg/Kg	1	8/3/2010 2:32:26 PM
Silver	ND	0.25		mg/Kg	1	8/3/2010 2:32:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Aniline	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Anthracene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Azobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1007915
 Project: API Overflow Sample Points & Roll Offs
 Lab ID: 1007915-16

Client Sample ID: API-Rolloff Bins
 Collection Date: 7/22/2010 8:00:00 AM
 Date Received: 7/26/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Carbazole	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/29/2010 12:25:11 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Chrysene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/29/2010 12:25:11 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/29/2010 12:25:11 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/29/2010 12:25:11 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/29/2010 12:25:11 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/29/2010 12:25:11 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Fluorene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Isophorone	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
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 NC Non-Chlorinated
 PQL Practical Quantitation Limit

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 H Holding times for preparation or analysis exceeded
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 ND Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-16

Client Sample ID: API-Rolloff Bins
Collection Date: 7/22/2010 8:00:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Naphthalene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	7/29/2010 12:25:11 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/29/2010 12:25:11 PM
Phenanthrene	1.7	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Phenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Pyrene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Pyridine	ND	2.5		mg/Kg	1	7/29/2010 12:25:11 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/29/2010 12:25:11 PM
Surr: 2,4,6-Tribromophenol	38.9	28.4-132		%REC	1	7/29/2010 12:25:11 PM
Surr: 2-Fluorobiphenyl	55.3	37.4-123		%REC	1	7/29/2010 12:25:11 PM
Surr: 2-Fluorophenol	58.4	28.6-110		%REC	1	7/29/2010 12:25:11 PM
Surr: 4-Terphenyl-d14	54.8	29.2-111		%REC	1	7/29/2010 12:25:11 PM
Surr: Nitrobenzene-d5	60.7	33.8-126		%REC	1	7/29/2010 12:25:11 PM
Surr: Phenol-d5	53.0	35.3-110		%REC	1	7/29/2010 12:25:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Toluene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Naphthalene	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
1-Methylnaphthalene	0.40	0.20		mg/Kg	1	8/3/2010 5:47:26 AM
2-Methylnaphthalene	0.44	0.20		mg/Kg	1	8/3/2010 5:47:26 AM
Acetone	ND	0.75		mg/Kg	1	8/3/2010 5:47:26 AM
Bromobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
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PQL Practical Quantitation Limit

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H Holding times for preparation or analysis exceeded
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Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1007915
 Project: API Overflow Sample Points & Roll Offs
 Lab ID: 1007915-16

Client Sample ID: API-Rolloff Bins
 Collection Date: 7/22/2010 8:00:00 AM
 Date Received: 7/26/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Bromodichloromethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Bromoform	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Bromomethane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
2-Butanone	ND	0.50		mg/Kg	1	8/3/2010 5:47:26 AM
Carbon disulfide	ND	0.50		mg/Kg	1	8/3/2010 5:47:26 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Chlorobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Chloroethane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Chloroform	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Chloromethane	0.11	0.050	B	mg/Kg	1	8/3/2010 5:47:26 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Dibromomethane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
2-Hexanone	ND	0.50		mg/Kg	1	8/3/2010 5:47:26 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	8/3/2010 5:47:26 AM
Methylene chloride	ND	0.15		mg/Kg	1	8/3/2010 5:47:26 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Styrene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Page 23 of 24

Hall Environmental Analysis Laboratory, Inc.

Date: 10-Aug-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1007915
Project: API Overflow Sample Points & Roll Offs
Lab ID: 1007915-16

Client Sample ID: API-Rolloff Bins
Collection Date: 7/22/2010 8:00:00 AM
Date Received: 7/26/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
trans-1,2-DCE	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Vinyl chloride	ND	0.050		mg/Kg	1	8/3/2010 5:47:26 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/3/2010 5:47:26 AM
Surr: 1,2-Dichloroethane-d4	82.5	60.1-112		%REC	1	8/3/2010 5:47:26 AM
Surr: 4-Bromofluorobenzene	5.29	79.4-113	S	%REC	1	8/3/2010 5:47:26 AM
Surr: Dibromofluoromethane	89.0	70.2-111		%REC	1	8/3/2010 5:47:26 AM
Surr: Toluene-d8	91.7	78.4-110		%REC	1	8/3/2010 5:47:26 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
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NC Non-Chlorinated
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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 1007915
Lab ID: B10072603-001
Client Sample ID 1007915-15C, API-Composite

Report Date: 08/06/10
Collection Date: 07/22/10 15:00
Date Received: 07/28/10
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	08/02/10 10:30 / jh
CORROSIVITY							
pH of Soil and Waste	8.36	s.u.		0.10		SW9045D	07/30/10 13:00 / jh
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	08/02/10 15:47 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	08/02/10 14:30 / jh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 1007915
Lab ID: B10072603-002
Client Sample ID 1007915-16B, API-Rolloff Bins

Report Date: 08/06/10
Collection Date: 07/22/10 08:00
Date Received: 07/28/10
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	08/02/10 10:30 / jh
CORROSIVITY							
pH of Soil and Waste	7.76	s.u.		0.10		SW9045D	07/30/10 13:00 / jh
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	08/02/10 15:49 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	08/02/10 14:30 / jh

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Hall Environmental
Project: 1007915

Report Date: 08/06/10
Work Order: B10072603

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW1010M							Batch: R151644		
Sample ID: LCS-R151644	Laboratory Control Sample				Run: PENSKY MARTEN CLOSED C			08/02/10 10:30	
Flash Point (Ignitability)	90.0	°F	30	100	98	102			
Sample ID: LCSD-R151644	Laboratory Control Sample Duplicate				Run: PENSKY MARTEN CLOSED C			07/27/10 10:00	
Flash Point (Ignitability)	90.0	°F	30	100	98	102			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Hall Environmental
Project: 1007915

Report Date: 08/06/10
Work Order: B10072603

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW846 Ch 7							Batch: 48025		
Sample ID: MB-48025	Method Blank					Run: AUTOAN201-B_100802C	08/02/10 16:01		
Cyanide, Reactive	ND	mg/kg	0.05						
Method: SW846 Ch 7							Batch: R151695		
Sample ID: MB-R151695	Method Blank					Run: MISC-HZW_100802E	08/02/10 14:30		
Sulfide, Reactive	ND	mg/kg	10						
Sample ID: LCS-R151695	Laboratory Control Sample					Run: MISC-HZW_100802E	08/02/10 14:30		
Sulfide, Reactive	26	mg/kg	20	90	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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Gillette, WY 866-686-7175 • Rapid City, SD 888-872-1225 • College Station, TX 888-690-2218

QA/QC Summary Report

Client: Hall Environmental
Project: 1007915

Report Date: 08/06/10
Work Order: B10072603

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9045D							Analytical Run: PH METER_100730B		
Sample ID: ICV	Initial Calibration Verification Standard								07/30/10 13:00
pH of Soil and Waste	4.02	s.u.	0.10	100	98	102			
Method: SW9045D							Batch: R151564		
Sample ID: B10072925-001ADUP	Sample Duplicate				Run: PH METER_100730B			07/30/10 13:00	
pH of Soil and Waste	6.65	s.u.	0.10				0.9	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-23211		MBLK				Batch ID: 23211		Analysis Date: 7/31/2010 4:43:43 PM			
Fluoride	ND	mg/Kg	0.30								
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-23211		LCS				Batch ID: 23211		Analysis Date: 7/31/2010 5:01:07 PM			
Fluoride	1.549	mg/Kg	0.30	1.5	0	103	90	110			
Chloride	14.58	mg/Kg	1.5	15	0	97.2	90	110			
Method: EPA Method 418.1: TPH											
Sample ID: MB-23178		MBLK				Batch ID: 23178		Analysis Date: 7/29/2010			
Petroleum Hydrocarbons, TR	ND	mg/Kg	20								
Sample ID: LCS-23178		LCS				Batch ID: 23178		Analysis Date: 7/29/2010			
Petroleum Hydrocarbons, TR	87.72	mg/Kg	20	100	0	87.7	86.8	116			
Sample ID: LCSD-23178		LCSD				Batch ID: 23178		Analysis Date: 7/29/2010			
Petroleum Hydrocarbons, TR	93.80	mg/Kg	20	100	0	93.8	86.8	116	6.70	20	
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-23230		MBLK				Batch ID: 23230		Analysis Date: 8/3/2010 12:17:23 PM			
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-23230		LCS				Batch ID: 23230		Analysis Date: 8/3/2010 12:51:13 PM			
Diesel Range Organics (DRO)	44.88	mg/Kg	10	50	0	89.8	64.6	116			
Sample ID: LCSD-23230		LCSD				Batch ID: 23230		Analysis Date: 8/3/2010 1:25:05 PM			
Diesel Range Organics (DRO)	44.91	mg/Kg	10	50	0	89.8	64.6	116	0.0780	17.4	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-23173		MBLK				Batch ID: 23173		Analysis Date: 7/28/2010 12:25:17 PM			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-23173		LCS				Batch ID: 23173		Analysis Date: 7/30/2010 5:48:54 PM			
Gasoline Range Organics (GRO)	21.83	mg/Kg	5.0	25	1.7	80.5	77.8	124			

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

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

Sample ID: 1007915-02A MSD

MSD

Batch ID: 23173 Analysis Date: 7/31/2010 8:29:22 AM

Methyl tert-butyl ether (MTBE)	1.299	mg/Kg	0.20	1	0	130	67.9	135	6.14	28	
Benzene	0.9670	mg/Kg	0.10	1	0	96.7	78.8	132	5.05	27	
Toluene	1.035	mg/Kg	0.10	1	0.061	97.4	78.9	112	3.76	19	
Ethylbenzene	1.058	mg/Kg	0.10	1	0.0232	103	69.3	125	3.27	10	
Xylenes, Total	3.229	mg/Kg	0.20	3	0	108	73	128	3.53	13	

Sample ID: MB-23173

MBLK

Batch ID: 23173 Analysis Date: 7/28/2010 12:25:17 PM

Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								

Sample ID: LCS-23173

LCS

Batch ID: 23173 Analysis Date: 7/28/2010 8:59:51 PM

Methyl tert-butyl ether (MTBE)	1.553	mg/Kg	0.10	1	0	155	67.9	135			S
Benzene	0.9269	mg/Kg	0.050	1	0	92.7	78.8	132			
Toluene	0.9273	mg/Kg	0.050	1	0	92.7	78.9	112			
Ethylbenzene	0.9764	mg/Kg	0.050	1	0	97.6	69.3	125			
Xylenes, Total	2.974	mg/Kg	0.10	3	0	99.1	73	128			

Sample ID: 1007915-02A MS

MS

Batch ID: 23173 Analysis Date: 7/31/2010 7:59:04 AM

Methyl tert-butyl ether (MTBE)	1.221	mg/Kg	0.20	1	0	122	67.9	135			
Benzene	0.9194	mg/Kg	0.10	1	0	91.9	78.8	132			
Toluene	0.9972	mg/Kg	0.10	1	0.061	93.6	78.9	112			
Ethylbenzene	1.024	mg/Kg	0.10	1	0.0232	100	69.3	125			
Xylenes, Total	3.117	mg/Kg	0.20	3	0	104	73	128			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-23173

MBLK

Batch ID: 23173 Analysis Date: 8/2/2010 10:46:30 PM

Benzene	ND	mg/Kg	0.050
Toluene	ND	mg/Kg	0.050
Ethylbenzene	ND	mg/Kg	0.050
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050
Naphthalene	ND	mg/Kg	0.10
1-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylnaphthalene	ND	mg/Kg	0.20
Acetone	ND	mg/Kg	0.75
Bromobenzene	ND	mg/Kg	0.050
Bromodichloromethane	ND	mg/Kg	0.050
Bromoform	ND	mg/Kg	0.050
Bromomethane	ND	mg/Kg	0.10
2-Butanone	ND	mg/Kg	0.50
Carbon disulfide	ND	mg/Kg	0.50
Carbon tetrachloride	ND	mg/Kg	0.10
Chlorobenzene	ND	mg/Kg	0.050
Chloroethane	ND	mg/Kg	0.10
Chloroform	ND	mg/Kg	0.050
Chloromethane	0.1198	mg/Kg	0.050
2-Chlorotoluene	ND	mg/Kg	0.050
4-Chlorotoluene	ND	mg/Kg	0.050
cis-1,2-DCE	ND	mg/Kg	0.050
cis-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10
Dibromochloromethane	ND	mg/Kg	0.050
Dibromomethane	ND	mg/Kg	0.10
1,2-Dichlorobenzene	ND	mg/Kg	0.050
1,3-Dichlorobenzene	ND	mg/Kg	0.050
1,4-Dichlorobenzene	ND	mg/Kg	0.050
Dichlorodifluoromethane	ND	mg/Kg	0.050
1,1-Dichloroethane	ND	mg/Kg	0.10
1,1-Dichloroethene	ND	mg/Kg	0.050
1,2-Dichloropropane	ND	mg/Kg	0.050
1,3-Dichloropropane	ND	mg/Kg	0.050
2,2-Dichloropropane	ND	mg/Kg	0.10
1,1-Dichloropropene	ND	mg/Kg	0.10
Hexachlorobutadiene	ND	mg/Kg	0.10
2-Hexanone	ND	mg/Kg	0.50
Isopropylbenzene	ND	mg/Kg	0.050
4-Isopropyltoluene	ND	mg/Kg	0.050

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-23173

MBLK

Batch ID: 23173 Analysis Date: 8/2/2010 10:46:30 PM

4-Methyl-2-pentanone	ND	mg/Kg	0.50
Methylene chloride	ND	mg/Kg	0.15
n-Butylbenzene	ND	mg/Kg	0.050
n-Propylbenzene	ND	mg/Kg	0.050
sec-Butylbenzene	ND	mg/Kg	0.050
Styrene	ND	mg/Kg	0.050
tert-Butylbenzene	ND	mg/Kg	0.050
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050
Tetrachloroethene (PCE)	ND	mg/Kg	0.050
trans-1,2-DCE	ND	mg/Kg	0.050
trans-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050
1,1,1-Trichloroethane	ND	mg/Kg	0.050
1,1,2-Trichloroethane	ND	mg/Kg	0.050
Trichloroethene (TCE)	ND	mg/Kg	0.050
Trichlorofluoromethane	ND	mg/Kg	0.050
1,2,3-Trichloropropane	ND	mg/Kg	0.10
Vinyl chloride	ND	mg/Kg	0.050
Xylenes, Total	ND	mg/Kg	0.10

Sample ID: lcs-23173

LCS

Batch ID: 23173 Analysis Date: 8/2/2010 9:50:15 PM

Benzene	0.9774	mg/Kg	0.050	1	0	97.7	80.7	112
Toluene	1.086	mg/Kg	0.050	1	0	109	86.1	126

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-23187

MBLK

Batch ID: 23187 Analysis Date: 7/29/2010 10:11:17 AM

Acenaphthene	ND	mg/Kg	0.20
Acenaphthylene	ND	mg/Kg	0.20
Aniline	ND	mg/Kg	0.20
Anthracene	ND	mg/Kg	0.20
Azobenzene	ND	mg/Kg	0.20
Benz(a)anthracene	ND	mg/Kg	0.20
Benzo(a)pyrene	ND	mg/Kg	0.20
Benzo(b)fluoranthene	ND	mg/Kg	0.20
Benzo(g,h,i)perylene	ND	mg/Kg	0.20
Benzo(k)fluoranthene	ND	mg/Kg	0.20
Benzoic acid	ND	mg/Kg	0.50
Benzyl alcohol	ND	mg/Kg	0.20
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20
Butyl benzyl phthalate	ND	mg/Kg	0.20
Carbazole	ND	mg/Kg	0.20
4-Chloro-3-methylphenol	ND	mg/Kg	0.50
4-Chloroaniline	ND	mg/Kg	0.50
2-Chloronaphthalene	ND	mg/Kg	0.25
2-Chlorophenol	ND	mg/Kg	0.20
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20
Chrysene	ND	mg/Kg	0.20
Di-n-butyl phthalate	ND	mg/Kg	0.50
Di-n-octyl phthalate	ND	mg/Kg	0.25
Dibenz(a,h)anthracene	ND	mg/Kg	0.20
Dibenzofuran	ND	mg/Kg	0.20
1,2-Dichlorobenzene	ND	mg/Kg	0.20
1,3-Dichlorobenzene	ND	mg/Kg	0.20
1,4-Dichlorobenzene	ND	mg/Kg	0.20
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25
Diethyl phthalate	ND	mg/Kg	0.20
Dimethyl phthalate	ND	mg/Kg	0.20
2,4-Dichlorophenol	ND	mg/Kg	0.40
2,4-Dimethylphenol	ND	mg/Kg	0.30
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50
2,4-Dinitrophenol	ND	mg/Kg	0.40
2,4-Dinitrotoluene	ND	mg/Kg	0.50
2,6-Dinitrotoluene	ND	mg/Kg	0.50
Fluoranthene	ND	mg/Kg	0.20
Fluorene	ND	mg/Kg	0.20
Hexachlorobenzene	ND	mg/Kg	0.20

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-23187

MBLK

Batch ID: 23187 Analysis Date: 7/29/2010 10:11:17 AM

Hexachlorobutadiene	ND	mg/Kg	0.20
Hexachlorocyclopentadiene	ND	mg/Kg	0.20
Hexachloroethane	ND	mg/Kg	0.20
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.20
Isophorone	ND	mg/Kg	0.50
2-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylphenol	ND	mg/Kg	0.50
3+4-Methylphenol	ND	mg/Kg	0.20
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20
N-Nitrosodiphenylamine	ND	mg/Kg	0.20
Naphthalene	ND	mg/Kg	0.20
2-Nitroaniline	ND	mg/Kg	0.20
3-Nitroaniline	ND	mg/Kg	0.20
4-Nitroaniline	ND	mg/Kg	0.25
Nitrobenzene	ND	mg/Kg	0.50
2-Nitrophenol	ND	mg/Kg	0.20
4-Nitrophenol	ND	mg/Kg	0.20
Pentachlorophenol	ND	mg/Kg	0.40
Phenanthrene	ND	mg/Kg	0.20
Phenol	ND	mg/Kg	0.20
Pyrene	ND	mg/Kg	0.20
Pyridine	ND	mg/Kg	0.50
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20
2,4,5-Trichlorophenol	ND	mg/Kg	0.20
2,4,6-Trichlorophenol	ND	mg/Kg	0.20

Sample ID: lcs-23187

LCS

Batch ID: 23187 Analysis Date: 7/29/2010 10:55:34 AM

Acenaphthene	1.215	mg/Kg	0.20	1.67	0	72.8	39.4	101
4-Chloro-3-methylphenol	2.737	mg/Kg	0.50	3.33	0	82.2	40.1	96.6
2-Chlorophenol	2.296	mg/Kg	0.20	3.33	0	69.0	32.2	94.6
1,4-Dichlorobenzene	1.067	mg/Kg	0.20	1.67	0	63.9	32.2	96.7
2,4-Dinitrotoluene	1.292	mg/Kg	0.50	1.67	0	77.3	39.4	111
N-Nitrosodi-n-propylamine	1.245	mg/Kg	0.20	1.67	0	74.6	41.1	89.8
4-Nitrophenol	1.869	mg/Kg	0.20	3.33	0	56.1	18.1	122
Pentachlorophenol	1.845	mg/Kg	0.40	3.33	0	55.4	37.5	98.8
Phenol	2.311	mg/Kg	0.20	3.33	0	69.4	29	96
Pyrene	1.453	mg/Kg	0.20	1.67	0	87.0	37.7	94.4
1,2,4-Trichlorobenzene	1.157	mg/Kg	0.20	1.67	0	69.3	35.6	101

Method: EPA Method 7471: Mercury

Sample ID: MB-23264

MBLK

Batch ID: 23264 Analysis Date: 8/4/2010 3:42:29 PM

Mercury ND mg/Kg 0.033

Sample ID: LCS-23264

LCS

Batch ID: 23264 Analysis Date: 8/4/2010 3:44:14 PM

Mercury 0.1660 mg/Kg 0.033 0.167 0 99.6 80 120

Qualifiers:

E Estimated value H Holding times for preparation or analysis exceeded
 J Analyte detected below quantitation limits NC Non-Chlorinated
 ND Not Detected at the Reporting Limit R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points & Roll Offs

Work Order: 1007915

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Soil Metals

Sample ID: MB-23233

MBLK

Batch ID: 23233 Analysis Date: 8/3/2010 11:50:39 AM

Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								

Sample ID: LCS-23233

LCS

Batch ID: 23233 Analysis Date: 8/3/2010 11:53:03 AM

Arsenic	27.52	mg/Kg	2.5	25	0	110	80	120			
Barium	25.60	mg/Kg	0.10	25	0	102	80	120			
Cadmium	25.85	mg/Kg	0.10	25	0	103	80	120			
Chromium	25.91	mg/Kg	0.30	25	0	104	80	120			
Lead	25.37	mg/Kg	0.25	25	0	101	80	120			
Selenium	27.04	mg/Kg	2.5	25	0	108	80	120			
Silver	26.33	mg/Kg	0.25	25	0	105	80	120			

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received:

7/26/2010

Work Order Number 1007915

Received by: AT

Sample ID labels checked by:

Checklist completed by:

Signature

Date

Initials

Matrix:

Carrier name Client drop-off

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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"/>		Number of preserved bottles checked for pH:
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"/>	<2 >12 unless noted below.
Container/Temp Blank temperature?	5.6°	<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

WESTERN - Refining

Project Name: API overFlow
Sample Points & Rolloffs

Project #:

Phone #: 505 702 3833

email or Fax#: 505-722-0210

☐ Standard ☐ Level 4 (Full Validation)

☐ NELAP ☐ Other

[illegible]

Sample Request ID

Sample Request ID

1954-1-1

40T-11-2

APL

APL-5-	
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APL-31	
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7100	AFL-3
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100	100	100

20	10
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Relinquished by: 7

Relinquished by:

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



COVER LETTER

Wednesday, September 22, 2010

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sample Points

Order No.: 1009668

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 9 sample(s) on 9/15/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

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

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-01

Client Sample ID: API-N-1
Collection Date: 9/14/2010 7:30:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 3:39:54 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 3:39:54 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 3:39:54 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 3:39:54 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 3:39:54 PM
Surr: 4-Bromofluorobenzene	120	88.9-151		%REC	1	9/20/2010 3:39:54 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	100	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-02

Client Sample ID: API-E-2
Collection Date: 9/14/2010 7:40:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 4:10:21 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 4:10:21 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 4:10:21 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 4:10:21 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 4:10:21 PM
Surr: 4-Bromofluorobenzene	111	88.9-151		%REC	1	9/20/2010 4:10:21 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	260	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-03

Client Sample ID: API-E-3
Collection Date: 9/14/2010 7:50:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	9/20/2010 4:40:51 PM
Benzene	0.79	0.50		mg/Kg	10	9/20/2010 4:40:51 PM
Toluene	1.4	0.50		mg/Kg	10	9/20/2010 4:40:51 PM
Ethylbenzene	1.2	0.50		mg/Kg	10	9/20/2010 4:40:51 PM
Xylenes, Total	4.2	1.0		mg/Kg	10	9/20/2010 4:40:51 PM
Surr: 4-Bromofluorobenzene	129	88.9-151		%REC	10	9/20/2010 4:40:51 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	5700	200		mg/Kg	10	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-04

Client Sample ID: API-S-4
Collection Date: 9/14/2010 8:15:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 5:11:05 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 5:11:05 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 5:11:05 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 5:11:05 PM
Xylenes, Total	0.13	0.10		mg/Kg	1	9/20/2010 5:11:05 PM
Surr: 4-Bromofluorobenzene	109	88.9-151		%REC	1	9/20/2010 5:11:05 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	40	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-W-5

Lab Order: 1009668

Collection Date: 9/14/2010 8:21:00 AM

Project: API Overflow Sample Points

Date Received: 9/15/2010

Lab ID: 1009668-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	9/21/2010 12:45:34 AM
Benzene	0.48	0.25		mg/Kg	5	9/21/2010 12:45:34 AM
Toluene	2.3	0.25		mg/Kg	5	9/21/2010 12:45:34 AM
Ethylbenzene	1.1	0.25		mg/Kg	5	9/21/2010 12:45:34 AM
Xylenes, Total	6.5	0.50		mg/Kg	5	9/21/2010 12:45:34 AM
Surr: 4-Bromofluorobenzene	127	88.9-151		%REC	5	9/21/2010 12:45:34 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	990	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-W-6

Lab Order: 1009668

Collection Date: 9/14/2010 8:35:00 AM

Project: API Overflow Sample Points

Date Received: 9/15/2010

Lab ID: 1009668-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/21/2010 1:15:51 AM
Benzene	ND	0.050		mg/Kg	1	9/21/2010 1:15:51 AM
Toluene	ND	0.050		mg/Kg	1	9/21/2010 1:15:51 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/21/2010 1:15:51 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/21/2010 1:15:51 AM
Surr: 4-Bromofluorobenzene	124	88.9-151		%REC	1	9/21/2010 1:15:51 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	49	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-07

Client Sample ID: BKT-E-7
Collection Date: 9/14/2010 8:55:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	9/21/2010 1:46:01 AM
Benzene	ND	0.50		mg/Kg	10	9/21/2010 1:46:01 AM
Toluene	ND	0.50		mg/Kg	10	9/21/2010 1:46:01 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/21/2010 1:46:01 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/21/2010 1:46:01 AM
Surr: 4-Bromofluorobenzene	102	88.9-151		%REC	10	9/21/2010 1:46:01 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	2100	200		mg/Kg	10	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-08

Client Sample ID: BKT-S-8
Collection Date: 9/14/2010 9:15:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	9/21/2010 2:16:16 AM
Benzene	ND	0.50		mg/Kg	10	9/21/2010 2:16:16 AM
Toluene	ND	0.50		mg/Kg	10	9/21/2010 2:16:16 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/21/2010 2:16:16 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/21/2010 2:16:16 AM
Surr: 4-Bromofluorobenzene	119	88.9-151		%REC	10	9/21/2010 2:16:16 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	1100	200		mg/Kg	10	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 22-Sep-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009668
Project: API Overflow Sample Points
Lab ID: 1009668-09

Client Sample ID: BKT-W-9
Collection Date: 9/14/2010 9:40:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	9/21/2010 2:46:35 AM
Benzene	ND	0.50		mg/Kg	10	9/21/2010 2:46:35 AM
Toluene	ND	0.50		mg/Kg	10	9/21/2010 2:46:35 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/21/2010 2:46:35 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/21/2010 2:46:35 AM
Surr: 4-Bromofluorobenzene	114	88.9-151		%REC	10	9/21/2010 2:46:35 AM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	1100	200		mg/Kg	10	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 1009668

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 418.1: TPH											
Sample ID: MB-23800		MBLK				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	ND	mg/Kg	20								
Sample ID: LCS-23800		LCS				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	97.10	mg/Kg	20	100	0	97.1	86.8	116			
Sample ID: LCSD-23800		LCSD				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	101.4	mg/Kg	20	100	0	101	86.8	116	4.31	16.2	
Method: EPA Method 8021B: Volatiles											
Sample ID: 1009668-01A MSD		MSD				Batch ID: 23783		Analysis Date: 9/17/2010 7:55:14 PM			
Methyl tert-butyl ether (MTBE)	1.319	mg/Kg	0.10	1	0	132	61.3	215	3.44	19.6	
Benzene	0.9070	mg/Kg	0.050	1	0	90.7	67.2	113	4.15	14.3	
Toluene	0.8438	mg/Kg	0.050	1	0	84.4	62.1	116	4.56	15.9	
Ethylbenzene	0.9174	mg/Kg	0.050	1	0	91.7	67.9	127	5.87	14.4	
Xylenes, Total	2.805	mg/Kg	0.10	3	0	93.5	60.6	134	3.56	12.6	
Sample ID: MB-23783		MBLK				Batch ID: 23783		Analysis Date: 9/17/2010 8:57:20 PM			
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-23783		LCS				Batch ID: 23783		Analysis Date: 9/17/2010 8:25:32 PM			
Methyl tert-butyl ether (MTBE)	1.339	mg/Kg	0.10	1	0	134	65.5	229			
Benzene	0.9632	mg/Kg	0.050	1	0.0167	94.7	83.3	107			
Toluene	0.8771	mg/Kg	0.050	1	0	87.7	74.3	115			
Ethylbenzene	0.9372	mg/Kg	0.050	1	0.0119	92.5	80.9	122			
Xylenes, Total	2.863	mg/Kg	0.10	3	0	95.4	85.2	123			
Sample ID: 1009668-01A MS		MS				Batch ID: 23783		Analysis Date: 9/17/2010 7:24:47 PM			
Methyl tert-butyl ether (MTBE)	1.275	mg/Kg	0.10	1	0	127	61.3	215			
Benzene	0.8701	mg/Kg	0.050	1	0	87.0	67.2	113			
Toluene	0.8062	mg/Kg	0.050	1	0	80.6	62.1	116			
Ethylbenzene	0.8651	mg/Kg	0.050	1	0	86.5	67.9	127			
Xylenes, Total	2.707	mg/Kg	0.10	3	0	90.2	60.6	134			

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received:

9/15/2010

Work Order Number 1009668

Received by: TLS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 ☒

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

3.9°

<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
Gallup Refinery
 Mailing Address: RT 3 Box 9
Gallup NM 87301
 Phone #: 505 722 3833
 email or Fax#: 505 722 0210

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
09-14-10	0730	soil	API-N-1	802-1	N/A	10091043
09-14-10	0740	soil	API-E-2	802-1	N/A	2
09-14-10	0750	soil	API-E-3	802-1	N/A	3
09-14-10	0815	soil	API-S-4	802-1	N/A	4
09-14-10	0821	soil	API-W-5	8-02-1	N/A	5
09-14-10	0835	soil	API-W-6	8-02-1	N/A	6
09-14-10	0855	soil	BKT-E-7	8-02-1	N/A	7
09-14-10	0915	soil	BKT-S-8	8-02-1	N/A	8
09-14-10	0940	soil	BKT-W-9	802-1	N/A	9

Date: 09-14-10 Time: 12:00
 Relinquished by: Alvin Dorsey
 Date: _____ Time: _____
 Relinquished by: _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:
API overflow
sample points

Project #:

Project Manager:

Thorman, Larsen

Sampler: Alvin Dorsey

On Ice: ☒ Yes ☐ No

Sample Temperature: 39



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
X			X								
X			X								
X			X								
X			X								
X			X								
X			X								
X			X								
X			X								
X			X								
X			X								

Remarks:



COVER LETTER

Thursday, October 07, 2010

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX: (505) 722-0210

RE: API Overflow Sample Points

Order No.: 1009667

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 9/15/2010 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.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

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

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT:	Western Refining Southwest, Gallup	Client Sample ID:	CHN-C-10
Lab Order:	1009667	Collection Date:	9/14/2010 11:00:00 AM
Project:	API Overflow Sample Points	Date Received:	9/15/2010
Lab ID:	1009667-01	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/17/2010 2:21:49 PM
Benzene	ND	0.050		mg/Kg	1	9/17/2010 2:21:49 PM
Toluene	ND	0.050		mg/Kg	1	9/17/2010 2:21:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/17/2010 2:21:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/17/2010 2:21:49 PM
Surr: 4-Bromofluorobenzene	128	88.9-151		%REC	1	9/17/2010 2:21:49 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	450	200		mg/Kg	10	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
NC Non-Chlorinated	ND Not Detected at the Reporting Limit
PQL Practical Quantitation Limit	S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** CHN-C-11**Lab Order:** 1009667**Collection Date:** 9/14/2010 11:20:00 AM**Project:** API Overflow Sample Points**Date Received:** 9/15/2010**Lab ID:** 1009667-02**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 2:08:56 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 2:08:56 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 2:08:56 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 2:08:56 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 2:08:56 PM
Surr: 4-Bromofluorobenzene	124	88.9-151		%REC	1	9/20/2010 2:08:56 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	79	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** NBT-W-12**Lab Order:** 1009667**Collection Date:** 9/14/2010 10:00:00 AM**Project:** API Overflow Sample Points**Date Received:** 9/15/2010**Lab ID:** 1009667-03**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 2:39:13 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 2:39:13 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 2:39:13 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 2:39:13 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 2:39:13 PM
Surr: 4-Bromofluorobenzene	112	88.9-151		%REC	1	9/20/2010 2:39:13 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	100	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009667
Project: API Overflow Sample Points
Lab ID: 1009667-04

Client Sample ID: NBT-N-13
Collection Date: 9/14/2010 10:20:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/17/2010 3:52:45 PM
Benzene	ND	0.050		mg/Kg	1	9/17/2010 3:52:45 PM
Toluene	ND	0.050		mg/Kg	1	9/17/2010 3:52:45 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/17/2010 3:52:45 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/17/2010 3:52:45 PM
Surr: 4-Bromofluorobenzene	112	88.9-151		%REC	1	9/17/2010 3:52:45 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	100	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** NBT-E-14**Lab Order:** 1009667**Collection Date:** 9/14/2010 10:25:00 AM**Project:** API Overflow Sample Points**Date Received:** 9/15/2010**Lab ID:** 1009667-05**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/17/2010 4:23:00 PM
Benzene	ND	0.050		mg/Kg	1	9/17/2010 4:23:00 PM
Toluene	ND	0.050		mg/Kg	1	9/17/2010 4:23:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/17/2010 4:23:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/17/2010 4:23:00 PM
Surr: 4-Bromofluorobenzene	113	88.9-151		%REC	1	9/17/2010 4:23:00 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	ND	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1009667
 Project: API Overflow Sample Points
 Lab ID: 1009667-06

Client Sample ID: API-Composite
 Collection Date: 9/14/2010 11:00:00 AM
 Date Received: 9/15/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	9/20/2010 3:09:23 PM
Benzene	ND	0.050		mg/Kg	1	9/20/2010 3:09:23 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 3:09:23 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 3:09:23 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 3:09:23 PM
Surr: 4-Bromofluorobenzene	120	88.9-151		%REC	1	9/20/2010 3:09:23 PM
EPA METHOD 300.0: ANIONS						Analyst: SRM
Fluoride	10	1.5		mg/Kg	5	9/23/2010 8:46:26 PM
Chloride	41	7.5		mg/Kg	5	9/23/2010 8:46:26 PM
EPA METHOD 7471: MERCURY						Analyst: RAGS
Mercury	0.059	0.033		mg/Kg	1	9/24/2010 2:55:39 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	50		mg/Kg	20	9/28/2010 12:01:22 PM
Barium	700	2.0		mg/Kg	20	9/28/2010 12:01:22 PM
Cadmium	ND	0.10		mg/Kg	1	9/21/2010 6:15:56 PM
Chromium	8.3	0.30		mg/Kg	1	9/21/2010 6:15:56 PM
Lead	1.3	0.25		mg/Kg	1	9/21/2010 6:15:56 PM
Selenium	ND	13		mg/Kg	5	9/21/2010 6:19:50 PM
Silver	ND	0.25		mg/Kg	1	9/21/2010 6:15:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: MAW
Acenaphthene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Acenaphthylene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Aniline	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Anthracene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Azobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Benzoic acid	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009667
Project: API Overflow Sample Points
Lab ID: 1009667-06

Client Sample ID: API-Composite
Collection Date: 9/14/2010 11:00:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: MAW
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Carbazole	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	9/28/2010 3:56:14 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Chrysene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/28/2010 3:56:14 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Dibenzofuran	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	9/28/2010 3:56:14 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	9/28/2010 3:56:14 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	9/28/2010 3:56:14 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	9/28/2010 3:56:14 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
Fluoranthene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Fluorene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Hexachloroethane	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Isophorone	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
2-Methylphenol	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Naphthalene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	9/28/2010 3:56:14 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009667
Project: API Overflow Sample Points
Lab ID: 1009667-06

Client Sample ID: API-Composite
Collection Date: 9/14/2010 11:00:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: MAW
Nitrobenzene	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
4-Nitrophenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	9/28/2010 3:56:14 PM
Phenanthrene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Phenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Pyrene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Pyridine	ND	1.0		mg/Kg	1	9/28/2010 3:56:14 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	9/28/2010 3:56:14 PM
Surr: 2,4,6-Tribromophenol	49.7	28.4-132		%REC	1	9/28/2010 3:56:14 PM
Surr: 2-Fluorobiphenyl	52.5	37.4-123		%REC	1	9/28/2010 3:56:14 PM
Surr: 2-Fluorophenol	51.8	28.6-110		%REC	1	9/28/2010 3:56:14 PM
Surr: 4-Terphenyl-d14	49.9	29.2-111		%REC	1	9/28/2010 3:56:14 PM
Surr: Nitrobenzene-d5	51.2	33.8-126		%REC	1	9/28/2010 3:56:14 PM
Surr: Phenol-d5	53.4	35.3-110		%REC	1	9/28/2010 3:56:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Benzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Toluene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Naphthalene	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	9/20/2010 9:53:31 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	9/20/2010 9:53:31 PM
Acetone	ND	0.75		mg/Kg	1	9/20/2010 9:53:31 PM
Bromobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Bromoform	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Bromomethane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
2-Butanone	ND	0.50		mg/Kg	1	9/20/2010 9:53:31 PM
Carbon disulfide	ND	0.50		mg/Kg	1	9/20/2010 9:53:31 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
Chlorobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Chloroethane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
Chloroform	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-Composite

Lab Order: 1009667

Collection Date: 9/14/2010 11:00:00 AM

Project: API Overflow Sample Points

Date Received: 9/15/2010

Lab ID: 1009667-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Chloromethane	0.14	0.050	B	mg/Kg	1	9/20/2010 9:53:31 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Dibromomethane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
2-Hexanone	ND	0.50		mg/Kg	1	9/20/2010 9:53:31 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	9/20/2010 9:53:31 PM
Methylene chloride	ND	0.15		mg/Kg	1	9/20/2010 9:53:31 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Styrene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM

Qualifiers:

* Value exceeds Maximum Contaminant Level
 E Estimated value
 J Analyte detected below quantitation limits
 NC Non-Chlorinated
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level
 ND Not Detected at the Reporting Limit
 S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1009667
Project: API Overflow Sample Points
Lab ID: 1009667-06

Client Sample ID: API-Composite
Collection Date: 9/14/2010 11:00:00 AM
Date Received: 9/15/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: MMS
Vinyl chloride	ND	0.050		mg/Kg	1	9/20/2010 9:53:31 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/20/2010 9:53:31 PM
Surr: 1,2-Dichloroethane-d4	78.4	60.1-112		%REC	1	9/20/2010 9:53:31 PM
Surr: 4-Bromofluorobenzene	79.5	79.4-113		%REC	1	9/20/2010 9:53:31 PM
Surr: Dibromofluoromethane	89.2	70.2-111		%REC	1	9/20/2010 9:53:31 PM
Surr: Toluene-d8	96.5	78.4-110		%REC	1	9/20/2010 9:53:31 PM
EPA METHOD 418.1: TPH						Analyst: JB
Petroleum Hydrocarbons, TR	300	20		mg/Kg	1	9/20/2010

Qualifiers:

* Value exceeds Maximum Contaminant Level
E Estimated value
J Analyte detected below quantitation limits
NC Non-Chlorinated
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit
S Spike recovery outside accepted recovery limits



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 1009667
Lab ID: B10091522-001
Client Sample ID 1009667-06C, API-Composite

Report Date: 09/23/10
Collection Date: 09/14/10 11:00
Date Received: 09/16/10
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/23/10 08:19 / mgs
CORROSIVITY							
pH of Soil and Waste	8.27	s.u.		0.10		SW9045D	09/22/10 14:30 / jh
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/22/10 12:47 / kjp
Sulfide, Reactive	20	mg/kg		20	500	SW846 Ch 7	09/21/10 13:30 / jh

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Hall Environmental

Project: 1009667

Report Date: 09/23/10

Work Order: B10091522

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW1010M										Batch: R154318
Sample ID: LCS-R154318		Laboratory Control Sample					Run: PENSKY MARTEN CLOSED C			09/23/10 08:19
Flash Point (Ignitability)		90.0	°F	30	100	98	102			
Sample ID: LCS-R154318		Laboratory Control Sample Duplicate					Run: PENSKY MARTEN CLOSED C			09/23/10 08:19
Flash Point (Ignitability)		90.0	°F	30	100	98	102	0	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Hall Environmental
Project: 1009667

Report Date: 09/23/10
Work Order: B10091522

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW846 Ch 7										Batch: 49186
Sample ID: MB-49186		Method Blank					Run: AUTOAN201-B_100922A			09/22/10 12:51
Cyanide, Reactive		ND	mg/kg	0.05						
Method: SW846 Ch 7										Batch: R154194
Sample ID: MB-R154194		Method Blank					Run: MISC-HZW_100921C			09/21/10 13:30
Sulfide, Reactive		ND	mg/kg	10						
Sample ID: LCS-R154194		Laboratory Control Sample					Run: MISC-HZW_100921C			09/21/10 13:30
Sulfide, Reactive		38	mg/kg	20	140	50	150			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



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QA/QC Summary Report

Client: Hall Environmental

Report Date: 09/23/10

Project: 1009667

Work Order: B10091522

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9045D										Analytical Run: BAL-P0108175_100922B
Sample ID: ICV			Initial Calibration Verification Standard							09/22/10 14:30
pH of Soil and Waste		3.97	s.u.	0.10	99	98	102			
Method: SW9045D										Batch: R154291
Sample ID: B10091522-001ADUP			Sample Duplicate				Run: BAL-P0108175_100922B			09/22/10 14:30
pH of Soil and Waste		8.44	s.u.	0.10				2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 1009667

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: LCS-23836		LCS				Batch ID: 23836		Analysis Date: 9/21/2010 2:22:27 AM			
Fluoride	1.418	mg/Kg	0.30	1.5	0	94.6	90	110			
Chloride	13.94	mg/Kg	1.5	15	0	92.9	90	110			
Method: EPA Method 418.1: TPH											
Sample ID: MB-23800		MBLK				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	ND	mg/Kg	20								
Sample ID: LCS-23800		LCS				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	97.10	mg/Kg	20	100	0	97.1	86.8	116			
Sample ID: LCSD-23800		LCSD				Batch ID: 23800		Analysis Date: 9/20/2010			
Petroleum Hydrocarbons, TR	101.4	mg/Kg	20	100	0	101	86.8	116	4.31	16.2	
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-23783		MBLK				Batch ID: 23783		Analysis Date: 9/17/2010 8:57:20 PM			
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-23783		LCS				Batch ID: 23783		Analysis Date: 9/17/2010 8:25:32 PM			
Methyl tert-butyl ether (MTBE)	1.339	mg/Kg	0.10	1	0	134	65.5	229			
Benzene	0.9632	mg/Kg	0.050	1	0.0167	94.7	83.3	107			
Toluene	0.8771	mg/Kg	0.050	1	0	87.7	74.3	115			
Ethylbenzene	0.9372	mg/Kg	0.050	1	0.0119	92.5	80.9	122			
Xylenes, Total	2.863	mg/Kg	0.10	3	0	95.4	85.2	123			
Method: EPA Method 8260B: VOLATILES											
Sample ID: lcs-23783		LCS				Batch ID: 23783		Analysis Date: 9/17/2010 8:27:17 PM			
Benzene	0.9243	mg/Kg	0.050	1	0	92.4	80.7	112			
Toluene	1.071	mg/Kg	0.050	1	0	107	86.1	126			
Chlorobenzene	1.065	mg/Kg	0.050	1	0	106	87.7	120			
1,1-Dichloroethene	1.078	mg/Kg	0.050	1	0	108	77.9	133			
Trichloroethene (TCE)	0.8552	mg/Kg	0.050	1	0	85.5	74.6	120			
Sample ID: lcsd-23783		LCSD				Batch ID: 23783		Analysis Date: 9/17/2010 8:55:37 PM			
Benzene	0.9296	mg/Kg	0.050	1	0	93.0	80.7	112	0.575	20	
Toluene	1.042	mg/Kg	0.050	1	0	104	86.1	126	2.68	20	
Chlorobenzene	1.031	mg/Kg	0.050	1	0	103	87.7	120	3.17	20	
1,1-Dichloroethene	1.060	mg/Kg	0.050	1	0	106	77.9	133	1.65	20	
Trichloroethene (TCE)	0.8341	mg/Kg	0.050	1	0	83.4	74.6	120	2.50	20	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 1009667

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-23910

MBLK

Batch ID: 23910 Analysis Date: 9/28/2010 2:54:09 PM

Acenaphthene	ND	mg/Kg	0.20
Acenaphthylene	ND	mg/Kg	0.20
Aniline	ND	mg/Kg	0.20
Anthracene	ND	mg/Kg	0.20
Azobenzene	ND	mg/Kg	0.20
Benz(a)anthracene	ND	mg/Kg	0.20
Benzo(a)pyrene	ND	mg/Kg	0.20
Benzo(b)fluoranthene	ND	mg/Kg	0.20
Benzo(g,h,i)perylene	ND	mg/Kg	0.20
Benzo(k)fluoranthene	ND	mg/Kg	0.20
Benzoic acid	ND	mg/Kg	0.50
Benzyl alcohol	ND	mg/Kg	0.20
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20
Butyl benzyl phthalate	ND	mg/Kg	0.20
Carbazole	ND	mg/Kg	0.20
4-Chloro-3-methylphenol	ND	mg/Kg	0.50
4-Chloroaniline	ND	mg/Kg	0.50
2-Chloronaphthalene	ND	mg/Kg	0.25
2-Chlorophenol	ND	mg/Kg	0.20
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20
Chrysene	ND	mg/Kg	0.20
Di-n-butyl phthalate	ND	mg/Kg	0.50
Di-n-octyl phthalate	ND	mg/Kg	0.25
Dibenz(a,h)anthracene	ND	mg/Kg	0.20
Dibenzofuran	ND	mg/Kg	0.20
1,2-Dichlorobenzene	ND	mg/Kg	0.20
1,3-Dichlorobenzene	ND	mg/Kg	0.20
1,4-Dichlorobenzene	ND	mg/Kg	0.20
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25
Diethyl phthalate	ND	mg/Kg	0.20
Dimethyl phthalate	ND	mg/Kg	0.20
2,4-Dichlorophenol	ND	mg/Kg	0.40
2,4-Dimethylphenol	ND	mg/Kg	0.30
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50
2,4-Dinitrophenol	ND	mg/Kg	0.40
2,4-Dinitrotoluene	ND	mg/Kg	0.50
2,6-Dinitrotoluene	ND	mg/Kg	0.50
Fluoranthene	ND	mg/Kg	0.20
Fluorene	ND	mg/Kg	0.20
Hexachlorobenzene	ND	mg/Kg	0.20

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 1009667

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-23910 MBLK Batch ID: 23910 Analysis Date: 9/28/2010 2:54:09 PM

Hexachlorobutadiene	ND	mg/Kg	0.20
Hexachlorocyclopentadiene	ND	mg/Kg	0.20
Hexachloroethane	ND	mg/Kg	0.20
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.20
Isophorone	ND	mg/Kg	0.50
2-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylphenol	ND	mg/Kg	0.50
3+4-Methylphenol	ND	mg/Kg	0.20
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20
N-Nitrosodiphenylamine	ND	mg/Kg	0.20
Naphthalene	ND	mg/Kg	0.20
2-Nitroaniline	ND	mg/Kg	0.20
3-Nitroaniline	ND	mg/Kg	0.20
4-Nitroaniline	ND	mg/Kg	0.40
Nitrobenzene	ND	mg/Kg	0.50
2-Nitrophenol	ND	mg/Kg	0.20
4-Nitrophenol	ND	mg/Kg	0.20
Pentachlorophenol	ND	mg/Kg	0.40
Phenanthrene	ND	mg/Kg	0.20
Phenol	ND	mg/Kg	0.20
Pyrene	ND	mg/Kg	0.20
Pyridine	ND	mg/Kg	0.50
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20
2,4,5-Trichlorophenol	ND	mg/Kg	0.20
2,4,6-Trichlorophenol	ND	mg/Kg	0.20

Sample ID: lcs-23910 LCS Batch ID: 23910 Analysis Date: 9/28/2010 3:25:08 PM

Acenaphthene	1.193	mg/Kg	0.20	1.67	0	71.5	39.4	101
4-Chloro-3-methylphenol	2.401	mg/Kg	0.50	3.33	0	72.1	40.1	96.6
2-Chlorophenol	2.472	mg/Kg	0.20	3.33	0	74.2	32.2	94.6
1,4-Dichlorobenzene	1.204	mg/Kg	0.20	1.67	0	72.1	32.2	96.7
2,4-Dinitrotoluene	1.617	mg/Kg	0.50	1.67	0	96.8	39.4	111
N-Nitrosodi-n-propylamine	1.071	mg/Kg	0.20	1.67	0	64.2	41.1	89.8
4-Nitrophenol	2.796	mg/Kg	0.20	3.33	0	84.0	18.1	122
Pentachlorophenol	1.945	mg/Kg	0.40	3.33	0.0447	57.1	37.5	98.8
Phenol	2.367	mg/Kg	0.20	3.33	0	71.1	29	96
Pyrene	1.062	mg/Kg	0.20	1.67	0	63.6	37.7	94.4
1,2,4-Trichlorobenzene	1.147	mg/Kg	0.20	1.67	0	68.7	35.6	101

Method: EPA Method 7471: Mercury

Sample ID: MB-23885 MBLK Batch ID: 23885 Analysis Date: 9/24/2010 2:40:33 PM

Mercury ND mg/Kg 0.033

Sample ID: LCS-23885 LCS Batch ID: 23885 Analysis Date: 9/24/2010 2:42:21 PM

Mercury 0.1721 mg/Kg 0.033 0.167 0 103 80 120

Qualifiers:

E Estimated value
 J Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 H Holding times for preparation or analysis exceeded
 NC Non-Chlorinated
 R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: API Overflow Sample Points

Work Order: 1009667

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: Soil Metals

Sample ID: MB-23828 MBLK

Batch ID: 23828 Analysis Date: 9/21/2010 3:55:21 PM

Arsenic	ND	mg/Kg	2.5
Barium	ND	mg/Kg	0.10
Cadmium	ND	mg/Kg	0.10
Chromium	ND	mg/Kg	0.30
Lead	ND	mg/Kg	0.25
Selenium	ND	mg/Kg	2.5
Silver	ND	mg/Kg	0.25

Sample ID: LCS-23828

LCS

Batch ID: 23828 Analysis Date: 9/21/2010 3:58:12 PM

Arsenic	25.04	mg/Kg	2.5	25	0	100	80	120
Barium	24.16	mg/Kg	0.10	25	0	96.6	80	120
Cadmium	24.65	mg/Kg	0.10	25	0	98.6	80	120
Chromium	24.79	mg/Kg	0.30	25	0	99.2	80	120
Lead	24.76	mg/Kg	0.25	25	0	99.1	80	120
Selenium	23.59	mg/Kg	2.5	25	0.6209	91.9	80	120
Silver	25.01	mg/Kg	0.25	25	0	100	80	120

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received:

9/15/2010

Work Order Number 1009667

Received by: TLS

Sample ID labels checked by:

Checklist completed by:

Signature

Date

Initials

Matrix:

Carrier name FedEx

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 ☒

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

3.9°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, October 28, 2010 4:05 PM
To: 'Larsen, Thurman'
Cc: Van Horn, Kristen, NMENV; Riege, Ed; VonGonten, Glenn, EMNRD
Subject: RE: Gallup Refinery (GW-032)- Re: Tank 116 Ultra-Low sulfur Diesel; Release and Air Quality Approval for Corrective Action (Letter of October 14, 2010) using a Passive Bioremediation (Ventilation) System

Beck:

Good afternoon. I discussed the schedule for implementation of the above subject corrective action with the NMED. The corrective action is taken due to the infrastructure present in the area of the original release(s).

The agencies have the following comments and/or requirements:

- 1) The placement of pipe 2 ft. below ground seems to position the vent pipe in the former excavation backfill. A deeper depth into the contaminated soils to facilitate more efficient venting is needed. Based on this, the agencies request the most efficient depth from Western and will there be peastone backfilled around the pipe?
- 2) A diagram(s) to scale with the pipe design and construction layout is requested to assess the actual aerial extent of the passive vent system and orientation of piping. Will there be vertical and radial and horizontal orientation of pipes from vertical?
- 3) At least 72 hr. notification when construction work and/or FID monitoring is performed.
- 4) A report submitted within 30 days of construction and/or activation of the system which should contain a brief summary of work with photos of the installation and field analytical FID monitoring results should be included for the baseline and rationale for establishment of contamination levels with table of monitoring data and rationale for derivation. The agencies would expect concentrations to increase during the warmer summer months.
- 5) The agencies request a summary of how the FID monitoring will be conducted. I believe you provided the model, but we need to make sure there will be QA/QC with calibration documentation before monitoring, where exactly the sample will be taken and how? Will there also be ambient downwind monitoring close to ground level with a description of weather conditions (10 mph winds toward the SE and temperature during each sample events?
- 6) Once the contamination level is established from the initial installation report, monitoring will need to occur, especially in the warm season months to help document the success of the passive vent system. The agencies are not comfortable with the language provided in the e-mail about monitoring to some point. Western will need to describe in the report a proposed end of monitoring or verification of remediation, i.e., monthly monitoring during the summer months that confirm FID concentrations have diminished to an acceptable level. Perhaps Western at the appropriate time it feels remediation is complete, may submit the data with concentration charts supporting a request to stop monitoring. Also, the monitoring results should be submitted to the agencies with a chart within 30 days of monitoring. This can be done via e-mail. The agencies should be notified when monitoring will be performed in order to witness the monitoring with the FID, etc. and the agencies may upon site inspection or request for suspension of monitoring visit the corrective action area in the summer months to witness Western's determination.

The agencies will expect to receive notification of install the system within the next 30 days or by 11/25/2010. A report within 30 days of install or by 12/23/2010 with documentation as described above. Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Tuesday, October 26, 2010 4:08 PM
To: Chavez, Carl J, EMNRD
Cc: Van Horn, Kristen, NMENV; Riege, Ed
Subject: Gallup Refinery (GW-032)- Re: Tank 116 Ultra-Low sulfur Diesel; Release and Air Quality Approval for Corrective Action (Letter of October 14, 2010) using a Passive Bioremediation (Ventilation) System

Dear Mr. Chavez,

Installation:

As per your e-mail and the recently approved NSR Permit # (0633-M8-R3, A214 A.), Western Refining (Gallup) will proceed with installation of the Passive Bioremediation (Ventilation) System for Tank 116 area is estimated to be within the next thirty to forty-five days. This should allow enough time for the fabrication and installation of the ventilation network. There will be approximately 10 to 15 ventilation or perforated pipes that will be installed at 6 to 8 ft centers. The exact quantity of perforated pipe will vary depending on the extent of the contaminated area (1000 sq ft) as required. These pipes will be inserted to a depth of approximately one to two feet.

Fabrication:

The pipe will be as specified and manufactured as follows: Piping: ID: 2 inch X 2 ft long, Holes: 24 holes drilled at 90° apart with 2 inch spacing between rows.

Monitoring and Recordkeeping Requirements:

The NSR Permit No (0633-M8-R3, Section A.214 A. 3) specifies the monitoring requirements for passive bioremediation system at any ULSD spill sites. An estimate of the quantity of VOC and HAP compounds will be reported on an annual basis. Records shall be maintained for each petroleum liquid spilled. Such records will include date, time, and quantity of any unrecovered liquids. Analysis will be performed initially to determine the presence of benzene. Records shall be maintained for each ULSD Passive Network installed. Vapor monitoring will be conducted by an outside contractor (EMS) that will be using a vapor detection instrument (TVA-1000B), a flame ionization detector (FID). It is expected that microbial activity will reduce the VOC concentration over time. Monitoring of these standpipes will initially be conducted upon installation of these ventilation pipes in order to establish a monitoring baseline. Upon establishing a baseline, VOC monitoring will first be conducted on a quarterly schedule for several quarters. Western will then modify the monitoring schedule in order to monitor VOC concentrations on a semi-annual timeframe.

If you should have any questions concerning this matter, please feel free to contact me at the number listed below or Mr. Ed Riege at (505) 722-0217.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Cell: (505) 862-1749
Email: thurman.larsen@wnr.com

Safety starts with "S", but always begins with YOU!"

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, October 14, 2010 6:12 AM
To: Smith, Coleman, NMENV; 'Riege, Ed'
Cc: Van Horn, Kristen, NMENV
Subject: Gallup Refinery (GW-032) RE: Tank 116 Ultra-Low Sulfur Diesel Release & Air Quality Approval for Corrective Action

Cole:

Good news if benzene doesn't become an issue.

By receipt of this e-mail, OCD and NMED- HWB can expect Western to move forward with corrective action.

Ed Riege, if you could please provide the agencies with a schedule for implementation of your corrective action by COB October 22, 2010.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Smith, Coleman, NMENV
Sent: Wednesday, October 13, 2010 4:59 PM
To: Chavez, Carl J, EMNRD; 'Riege, Ed'
Cc: Van Horn, Kristen, NMENV
Subject: RE: Tank 116 Ultra-Low Sulfur Diesel Release & Air Quality Approval for Corrective Action

Carl,

The air quality permit NSR 0633M8R3 with Condition A214.A allowing passive bioremediation was issued on 10/6, and became effective today, 10/13 with Western's payment of the permit fee invoice. I believe the issue is considered closed on our end. Let me know if you have any questions – the permit allows passive bioremediation system(s) to be installed at any location of a ULSD on-site spill, as long as the benzene content is known or tested to be non-detect.

Thanks for reminding me to update you!

Cole

Coleman A. Smith, Ph.D.
Permit Specialist, Major Source Unit
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87507
voice: (505) 476-5550
fax: (505) 476-4375
AQB main: (505) 476-4300



Please consider the environment before printing this e-mail.

From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 13, 2010 4:53 PM
To: Riege, Ed
Cc: Van Horn, Kristen, NMENV; Smith, Coleman, NMENV
Subject: Tank 116 Ultra-Low Sulfur Diesel Release & Air Quality Approval for Corrective Action

Ed:

Do you know the status of the NMED- AQB on Western's proposed corrective action. The agencies want to make sure we can proceed or if not, Western needs to propose an alternative investigation with corrective action.

Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Smith, Coleman, NMENV
Sent: Thursday, September 23, 2010 9:00 AM
To: Chavez, Carl J, EMNRD; 'Riege, Ed'
Cc: 'Jason Swofford'; Van Horn, Kristen, NMENV; 'Larsen, Thurman'; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: RE: Gallup Admin Rev No. 0633M8R1

Carl,

The passive bioremediation activity will be incorporated into Gallup's NSR permit 0633-M8-R3 that must be issued on or before October 13, 2010. When this permit is issued, the activity will be approved. I will inform you of the issue date – should be within the next 2 weeks.

Cole

Coleman A. Smith, Ph.D.
Permit Specialist, Major Source Unit
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87507
voice: (505) 476-5550
fax: (505) 476-4375
AQB main: (505) 476-4300



Please consider the environment before printing this e-mail.

From: Chavez, Carl J, EMNRD
Sent: Thursday, September 23, 2010 8:55 AM
To: Smith, Coleman, NMENV; 'Riege, Ed'
Cc: 'Jason Swofford'; Van Horn, Kristen, NMENV; 'Larsen, Thurman'; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: RE: Gallup Admin Rev No. 0633M8R1

Cole:

Good morning.

Could you please clarify this paragraph in your msg. below: "Therefore, the proposed exemption under 20.2.72.202.B.(2) NMAC has been denied. However, this activity will be incorporated as a regulated activity in the NSR Technical Revision Application No. 0633-M8-R3, received by the Department on September 13, 2010."

Does NSR mean Western can proceed with the passive remediation corrective action as a regulated activity under the NSR Technical Revision Application with the OCD and NMED- Hazardous Waste Bureau?

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>

(Pollution Prevention Guidance is under "Publications")

From: Smith, Coleman, NMENV

Sent: Thursday, September 23, 2010 8:45 AM

To: Riege, Ed

Cc: Jason Swofford; Chavez, Carl J, EMNRD; Van Horn, Kristen, NMENV; 'Larsen, Thurman'; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV

Subject: Gallup Admin Rev No. 0633M8R1

Ed,

The New Mexico Environment Department, Air Quality Bureau, has reviewed your request for Administrative Revision to the Gallup Refinery Air Quality Permit 0633-M8. The Notice of Exemption (Admin) was assigned File No. 0633-M8-R1. Due to the possible applicability to the provisions in the Amended Stipulated (ASFO) Final Order No. AQCA 02-09 dated 1/22/09, Section XIII.G, the passive bioremediation system proposed cannot be considered NSR exempt in a general way as applicable to all future Ultra Low Sulfur Diesel spills. The ASFO requires in Section XIII.G that all spills be evaluated for benzene content, and any detected benzene added to the annual refinery Total Annual Benzene (TAB) limit.

Therefore, the proposed exemption under 20.2.72.202.B.(2) NMAC has been denied. However, this activity will be incorporated as a regulated activity in the NSR Technical Revision Application No. 0633-M8-R3, received by the Department on September 13, 2010.

Attached is a scanned, signed copy of the Administrative Revision Denial letter. The original copy will be sent to you by Certified Mail.

I should have a draft permit 0633M8R3 that incorporates the new wastewater/storm water tank Z84-T35 as well as provisions for the passive bioremediation system ready to send you today or tomorrow.

Thanks,

Cole

<< File: Admin Denial (0633M8R1).pdf >>

Coleman A. Smith, Ph.D.
Permit Specialist, Major Source Unit
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87507
voice: (505) 476-5550
fax: (505) 476-4375
AQB main: (505) 476-4300



Please consider the environment before printing this e-mail.

Chavez, Carl J, EMNRD

From: Smith, Coleman, NMENV
Sent: Thursday, September 23, 2010 8:45 AM
To: Riege, Ed
Cc: Jason Swofford; Chavez, Carl J, EMNRD; Van Horn, Kristen, NMENV; 'Larsen, Thurman'; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: Gallup Admin Rev No. 0633M8R1

Ed,

The New Mexico Environment Department, Air Quality Bureau, has reviewed your request for Administrative Revision to the Gallup Refinery Air Quality Permit 0633-M8. The Notice of Exemption (Admin) was assigned File No. 0633-M8-R1. Due to the possible applicability to the provisions in the Amended Stipulated (ASFO) Final Order No. AQCA 02-09 dated 1/22/09, Section XIII.G, the passive bioremediation system proposed cannot be considered NSR exempt in a general way as applicable to all future Ultra Low Sulfur Diesel spills. The ASFO requires in Section XIII.G that all spills be evaluated for benzene content, and any detected benzene added to the annual refinery Total Annual Benzene (TAB) limit.

Therefore, the proposed exemption under 20.2.72.202.B.(2) NMAC has been denied. However, this activity will be incorporated as a regulated activity in the NSR Technical Revision Application No. 0633-M8-R3, received by the Department on September 13, 2010.

Attached is a scanned, signed copy of the Administrative Revision Denial letter. The original copy will be sent to you by Certified Mail.

I should have a draft permit 0633M8R3 that incorporates the new wastewater/storm water tank Z84-T35 as well as provisions for the passive bioremediation system ready to send you today or tomorrow.

Thanks,

Cole



Admin Denial
(0633M8R1).pdf

Coleman A. Smith, Ph.D.
Permit Specialist, Major Source Unit
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87507
voice: (505) 476-5550
fax: (505) 476-4375
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BILL RICHARDSON
Governor

DIANE DENISH
Lieutenant Governor

New Mexico
ENVIRONMENT DEPARTMENT

Air Quality Bureau
1301 Siler Road, Building B
Santa Fe, NM 87507-3113
Phone (505) 476-4300
Fax (505) 476-4375
www.nmenv.state.nm.us



RON CURRY
Secretary

SARAH COTTRELL
Deputy Secretary

September 23, 2010

CERTIFIED MAIL NO. 7008 0500 0001 1249 0610
RETURN RECEIPT REQUESTED

Ed Riege
Environmental Manager
Western Refining Southwest Inc - Gallup Refinery
Route 3 Box 7
Gallup, NM 87301

Re: Denial of Permit Application for Administrative Revision No. 0633-M8-R1 (TEMPO ID No. 888 - PRN20100002) - Gallup Refinery

Dear Mr. Riege:

This letter is in response to your air quality permit application dated July 22, 2010 to modify the Gallup Refinery located in Gallup, New Mexico. The Department received the application on August 12, 2010.

The Department has completed a review of the application for the proposed project and has determined that Administrative Revision to the permit cannot be issued. The review has determined that the exemption claimed under 20.2.72.202.B.(2) NMAC for passive bioremediation cannot be applied in a general way to all Ultra Low Sulfur Diesel spills at the refinery, due to the possible applicability of provisions in the Amended Stipulated Final Order No. AQCA 02-09, dated 1/22/09, Section XIII.G. Therefore, in accordance with 20.2.72 NMAC, Section 208.A the application for this permit revision is denied. However, this activity will be incorporated into Technical Permit Revision Application No. 0633-M8-R3, received on September 13, 2010.

APPEAL PROCEDURES

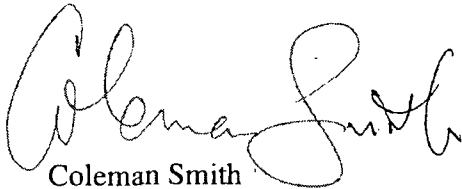
20.2.72 NMAC, Section 207, provides that any person who participated in a permitting action before the Department and who is adversely affected by such permitting action, may file a

petition for hearing before the Environmental Improvement Board. The petition shall be made in writing to the Environmental Improvement Board within thirty (30) days from the date notice is given of the Department's action and shall specify the portions of the permitting action to which the petitioner objects, certify that a copy of the petition has been mailed or hand-delivered and attach a copy of the permitting action for which review is sought. Unless a timely request for hearing is made, the decision of the Department shall be final. The petition shall be copied simultaneously to the Department upon receipt of the appeal notice. If the petitioner is not the applicant or permittee, the petitioner shall mail or hand-deliver a copy of the petition to the applicant or permittee. The Department shall certify the administrative record to the board. Petitions for a hearing shall be sent to:

Secretary, New Mexico Environmental Improvement Board
1190 St. Francis Drive, Runnels Bldg. Rm N2153
P.O. Box 5469
Santa Fe, New Mexico 87502

If you have any questions, please call me in Santa Fe at 505-476-5550.

Sincerely,

A handwritten signature in black ink, appearing to read 'Coleman Smith', written in a cursive style.

Coleman Smith
Permit Specialist
Major Source Unit
Air Quality Bureau

xc via e-mail: Jason Swofford, Trinity Consultants

Chavez, Carl J, EMNRD

From: Riege, Ed [Ed.Riege@wnr.com]
Sent: Tuesday, September 07, 2010 9:21 AM
To: Chavez, Carl J, EMNRD
Subject: RE: Sanitary Effluent Release- Pilot Travel Center

Hi Carl,
The first leak was diesel from an underground line located on Pilot property. The line has been shut down and flushed. The second leak was from a combined potable water and sanitary sewer underground leaks located on Pilot property which were surfacing on Pilot property and then flowing under the access road onto Western property. Not sure what the latest status of that leak is but will check today.

Ed

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

Safety starts with "S", but always begins with "You"

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, September 02, 2010 8:10 AM
To: Riege, Ed
Subject: Sanitary Effluent Release- Pilot Travel Center

Ed:

Good morning.

I was contacted by HWB a couple weeks back about a possible gasoline release associated with the sanitary sewer system at the above subject facility. According to HWB, the NMED Petroleum Storage Tank Bureau (PSTB) was responding to a complaint or release on the facility property, which appeared to be gasoline.....? HWB informed OCD that we should wait to hear back from PSTTB on the release before involving Western..... OCD was good with that, but we haven't received any information.

Last Friday, we receive a call from NMED regarding a sanitary line breaking on the above subject facility property. OCD has not been able to confirm whether the above incidents were separate or related. NMED wanted to know if the release was covered by OCD under the GW-032 discharge permit, since as you know a couple of sanitary effluent lines are routed to Westerns AL for treatment and evaporation.

OCD informed NMED on 8/31 that since the release was on the facility property and not the refinery property, it was an NMED jurisdiction matter. Please confirm if there are any extenuating or unknown circumstances that would make the releases mentioned above Western's responsibility. Any other information you could share would be appreciated as OCD just wants to make sure we are communicating. Should have contacted you a couple weeks back.

Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Deal, Kathie, NMENV
Sent: Tuesday, August 31, 2010 4:20 PM
To: Chavez, Carl J, EMNRD; VonGonten, Glenn, EMNRD
Subject: RE: Pilot Travel Center Release, Gallup NM

Thanks! We will handle the domestic waste spill.

Kathie

From: Chavez, Carl J, EMNRD
Sent: Tuesday, August 31, 2010 3:37 PM
To: Deal, Kathie, NMENV; VonGonten, Glenn, EMNRD
Subject: RE: Pilot Travel Center Release, Gallup NM

Kathie:

It is in NMED's jurisdiction on the pilot travel center property.

A little confusion, there was an alleged petroleum release at the travel center for which Hope Monzeglio a couple of weeks ago was awaiting NMED- PSTB's response to that incident. Just wondering if it is the same incident? If so, there was gasoline at surface according to Hope and we were going to wait until we heard more about this release.

Similar to PSTB taking the lead on the underground storage tanks on it's property, any sanitary release on their property with their treatment system would be the NMED's jurisdiction in this case. If the release had occurred from the any pipeline on the refinery property, OCD feels that this would fall under OCD jurisdiction in regulating the Waste Water treatment system on the refinery property.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Deal, Kathie, NMENV
Sent: Tuesday, August 31, 2010 3:29 PM
To: VonGonten, Glenn, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: RE: Pilot Travel Center Release, Gallup NM

Glenn,

I've been playing phone tag with your group about Pilot Travel Center. I think it's been decided that the spill originated on the property of the Pilot Travel Center. It is my understanding from talking to Hope (NMED-HWB) that OCD has jurisdiction over the lines sending the domestic wastewater to the refinery. I understand that Pilot Travel Center is the "responsible party", but I am trying to answer the question as to which agency is going to oversee clean-up of the spill? NMED has 20.6.2.1203 NMAC that covers this type of spill, however, we do not want to "muddy the waters" if OCD also has a rule that will handle this. When the call came into the field office, and Pilot was notified, Pilot was very clear that they are regulated by OCD. NMED will oversee spill clean-up if necessary, but doesn't want to interfere with your oversight if that's where the authority lies.

Please let me know if OCD is going to respond to ENTS #7343. Thanks!

Kathie J. Deal
Environmental Scientist
Ground Water Quality Bureau
(505) 827-2713

New Mexico Environment Department
1190 St. Francis Drive
P.O. Box 5469
Santa Fe, NM 87502-5469
www.nmenv.state.nm.us

From: Chavez, Carl J, EMNRD
Sent: Tuesday, August 31, 2010 2:40 PM
To: Deal, Kathie, NMENV
Subject: Pilot Travel Center Release, Gallup NM

Ms. Deal:

Sorry we're playing phone tag. Please contact Glenn von Gonten at 505-476-3488 to discuss jurisdiction on recent release at above facility. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Smith, Coleman, NMENV
Sent: Thursday, August 26, 2010 4:29 PM
To: Chavez, Carl J, EMNRD
Cc: Van Horn, Kristen, NMENV; 'Larsen, Thurman'; 'Riege, Ed'; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV; Jason Swofford
Subject: RE: T-116 Passive Bio-venting Project Status- OCD RESP 082710

Carl,

I am waiting to confer with an AQB colleague, who returns from vacation on Sept. 1 and has a high level of knowledge on the Gallup Refinery. Western never requested an Air Quality exemption for the T-116 spill, which occurred in 2008 and was "remediated" during the ensuing year. However, the current request is for a "blanket" exemption to install similar vent pipes at any future spill site, as long as the spill is ULSD (or any petroleum distillate with a normal vapor pressure of 0.2 psig or less). The complication is that Western has an ongoing AQB Compliance Order that requires all spills containing benzene to be reported to us and included in a Total Annual Benzene (TAB) limit of 10 MT/y for all combined wastewater streams. Therefore, any spill containing any detectable level of benzene could not fall under an AQB exemption due to this applicable requirement.

Western's analysis for the T-116 spill showed Non-Detect (ND) benzene, so there is no violation of the Compliance Order associated with that spill. However, my personal inclination is to ask for an analysis for every spill, regardless of whether or not it is claimed to be ULSD (which I suppose is ND for benzene by definition, but I'm not positive about that).

The AQB Enforcement Section would not typically pursue any actions on unreported ULSD spills because the VOC air emission rate is very small.

That is the present status. I'll contact you towards the end of next week with our decision on the Air Quality exemption application.

Thanks,

Cole

Coleman A. Smith, Ph.D.
Permit Specialist, Major Source Unit
Air Quality Bureau
New Mexico Environment Department
1301 Siler Road, Bldg. B
Santa Fe, NM 87507
voice: (505) 476-5550
fax: (505) 476-4375
AQB main: (505) 476-4300

P Please consider the environment before printing this e-mail.

-----Original Message-----

From: Chavez, Carl J, EMNRD
Sent: Thursday, August 26, 2010 3:56 PM
To: Smith, Coleman, NMENV
Cc: Van Horn, Kristen, NMENV; Larsen, Thurman; Riege, Ed; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: FW: T-116 Passive Bio-venting Project Status- OCD RESP 082710

Coleman:

I think NMED- Hazardous Waste Bureau (HWB) and OCD are awaiting NMED- AQB's approval of the corrective action.....

The OCD is concerned about migration of contamination to the water table near this location. Western will need to comply with the OCD's approval with conditions on the corrective actions.

OCD and NMED should be sharing information on this OCD corrective action/ RCRA- Area of Concern (AOC). It appears the contamination lies within a HWB AOC.

Please contact me if you have questions.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Thursday, August 26, 2010 2:34 PM
To: Chavez, Carl J, EMNRD
Cc: Van Horn, Kristen, NMENV; Riege, Ed
Subject: T-116 Passive Bio-venting Project Status- OCD RESP 082710

<<OCD RESP 082710.pdf>> Dear Mr. Chavez,

The above attachment is in response to your e-mail from August 17, 2010 concerning the status of T-116 (Release of Ultra-Low Sulfur Diesel) spill and the Passive Bio-venting Remediation Project.

Regards,

Beck Larsen,
Environmental Engineer
Western Refining
The message is ready to be sent with the following file or link attachments:

OCD RESP 082710

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, August 26, 2010 3:56 PM
To: Smith, Coleman, NMENV
Cc: Van Horn, Kristen, NMENV; 'Larsen, Thurman'; Riege, Ed; VonGonten, Glenn, EMNRD; Cobrain, Dave, NMENV
Subject: FW: T-116 Passive Bio-venting Project Status- OCD RESP 082710
Attachments: OCD RESP 082710.pdf

Coleman:

I think NMED- Hazardous Waste Bureau (HWB) and OCD are awaiting NMED- AQB's approval of the corrective action.....

The OCD is concerned about migration of contamination to the water table near this location. Western will need to comply with the OCD's approval with conditions on the corrective actions.

OCD and NMED should be sharing information on this OCD corrective action/ RCRA- Area of Concern (AOC). It appears the contamination lies within a HWB AOC.

Please contact me if you have questions.

Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

-----Original Message-----

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Thursday, August 26, 2010 2:34 PM
To: Chavez, Carl J, EMNRD
Cc: Van Horn, Kristen, NMENV; Riege, Ed
Subject: T-116 Passive Bio-venting Project Status- OCD RESP 082710

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The above attachment is in response to your e-mail from August 17, 2010 concerning the status of T-116 (Release of Ultra-Low Sulfur Diesel) spill and the Passive Bio-venting Remediation Project.

Regards,

Beck Larsen,
Environmental Engineer
Western Refining

The message is ready to be sent with the following file or link attachments:

OCD RESP 082710

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Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Thursday, August 26, 2010 2:34 PM
To: Chavez, Carl J, EMNRD
Cc: Van Horn, Kristen, NMENV; Riege, Ed
Subject: T-116 Passive Bio-venting Project Status- OCD RESP 082710
Attachments: OCD RESP 082710.pdf

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Regards,

Beck Larsen,
Environmental Engineer
Western Refining

The message is ready to be sent with the following file or link
attachments:

OCD RESP 082710

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WNR
LISTED
NYSE

GALLUP

August 26, 2010

New Mexico Energy, Minerals & Natural Resources Dept
Oil Conservation Division, Environmental Bureau (OCD)
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Attention: Mr. Carl Chavez

Dear Mr. Chavez:

This letter is in response to your e-mail of August 17, 2010 addressing your concerns and further clarification about in-situ passive bio-venting remediation in the contaminated zone surrounding T-116.

In an e-mail of September 21, 2009, Western Refining obtained approval from the OCD to conduct a pilot test and to continue with a larger scale effort to bring down the levels of hydrocarbons in the soils to acceptable levels. The pilot study was initiated using one pipe. Analysis indicated that there was 6000 ppm in an area of 500 square feet and about 2 feet deep. This would equate to maximum of 0.17 TPY. Agency approval has to be received from both OCD and NMED prior to initiating a large scale bio-venting remediation project. Western Refining has been using Trinity Consultants in order to obtain approval from the NMED/ Air Quality Bureau (AQB) in order to proceed with this project. The AQB has contacted OCD for additional information as a result of a request which was submitted to the Agency in order to apply for an exemption to our current air quality permit that would allow us to proceed with this project. This project will not commence until Agency (NMED/AQB) permission has been granted. Once the Agency's approval has been granted, the passive bio-venting remediation project will commence on a larger scale by placing approximately 20 perforated pipes in the affected area according to the sampling plan. These pipes will be placed at uniform spacing of about 6 feet distance between the pipes and at 2 feet depth to the bottom of these pipes.

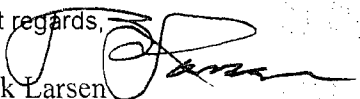
Volatile Organic Compound (VOC) Monitoring will be conducted using the using a leak detection device (Model # TVA-1000) that is currently utilized under the Leak Detection and Repair (LDAR) Program in order to detect hydrocarbons that may be present in the soil. Soil samples will be collected at the bottom of the pipes about every 6 months in order to determine any VOC reduction. A report will be submitted to the Agencies (OCD, the NMED / Hazardous Waste Bureau (HWB), and the NMED / Air Quality Bureau (AQB). Based on the pilot test, it is expected that the levels of hydrocarbons will be substantially reduced. If the VOC concentrations are not reduced below regulatory levels, the bio-venting process will continue until acceptable levels have been reached.

Remedial activities and soil cleanup have not been initiated for this area due to the proposed Passive Bio-venting that was pending approval from NMED. The purpose of the in-situ Passive Bio-ventilation redial project is to remediate the soil in place. Contaminated soil has not been removed pending approval from the AQB.

The Area of Concern (AOC) for tank (T-116) is part of the Tank Farm System which includes a berm surrounding the tank and is not part of a SWMU. Enclosed is a copy of the Final Report including the C-141 (Final) and the Sampling Plan that was previously submitted to the Agency.

We look forward to a successful conclusion to this effort, recognizing that this approach has many benefits to the environment and to the safe operation of the refinery.

Best regards,


Beck Larsen
Environmental Engineer
Western Refining (Gallup)

Enc: C-141 (Final) with Sampling Plan

Riege, Ed

From: Chavez, Carl J, EMNRD [CarlJ.Chavez@state.nm.us]
Sent: Tuesday, August 17, 2010 2:57 PM
To: Riege, Ed
Cc: Coleman.Simth@state.nm.us; Van Horn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Subject: Initial C-141 T-116 Release Ultra-Low Sulfur Diesel Signed 8/20/2009 & Corrective Action (CA) Update (GW-032)

Ed:

Re: C-141 Tk-116 Ultra-Low Sulfur Diesel Release Follow-Up

OCD received a call from Cole Smith (NMED- AQB) regarding the above release that occurred in April 24, 2008. According to Cole, he is assessing this remediation in consideration of the existing facility air quality permit from NMED to determine whether the facility has or is exceeding its allowed air quality emission under the permit. Preliminarily, it appears that Western is just now seeking an exemption from the AQB permit to install the passive bio-vent system and AQB is seeking more details to assess whether Western would exceed its existing Air Quality Emission Permit?

Based on an excavation and proposed passive soil vent remediation, chem.-flow model with soil monitoring, the OCD approved the CA on September 21, 2009 with the requirement that a schedule for installation of the perforated pipes with notification that pipes were installed, etc. The OCD is also seeking to determine the status of the passive remediation proposed by Western to determine whether remediation was achieved and the basis? The disposition of excavated contaminated soils?

The OCD requests confirmation of whether T-116 is located within a RCRA SWMU or AOC? If not, NMED- Haz. Waste Bureau needs to also know more about this release.

The information is available on OCD Online at
http://ocdimage.emnrd.state.nm.us/Imaging/FileStore/SantaFeAdmin/AO/63592/pENV000GW00033_115_AO.tif (see pages 265-299 and 309 - 362).

Do you have an update or perhaps there is a final report that was submitted to OCD that should be in our file?

A preliminary response is requested by next Friday COB 8/27/2010 and/or a proposed schedule for receipt of report on CA Project may be approved by the OCD. Please contact Cole Smith at (505) 476-5550 and me to discuss. Thank you.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

8/23/2010

Chavez, Carl J, EMNRD

Subject: GW-32 Response to E-mail requested by COB today.
Location: TBD

Start: Fri 8/27/2010 2:00 PM
End: Fri 8/27/2010 2:30 PM

Recurrence: (none)

Organizer: Chavez, Carl J, EMNRD

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, August 17, 2010 2:57 PM
To: 'Riege, Ed'
Cc: 'Coleman.Simth@state.nm.us'; Van Horn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Subject: Initial C-141 T-116 Release Ultra-Low Sulfur Diesel Signed 8/20/2009 & Corrective Action (CA) Update (GW-032)

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Larsen, Thurman

From: Rajen, Gaurav
Sent: Friday, October 23, 2009 7:29 AM
To: 'Wendy Alexander'
Cc: Riege, Ed
Subject: Your questions re AQB and remediation

Do write to me with specific questions – we also need a generic determination regarding remediation projects, not a site specific determination – what are the quantities involved, for example, etc., before AQB regs, kick in?

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Monday, September 21, 2009 10:59 AM
To: Rajen, Gaurav; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: RE: Final report - Tank 116 spill

Raj:

Re: Final Report Section 4.0 Conclusions below.

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

Approved. Please provide a schedule for installing the perforated pipes as proposed and notify the agencies when the pipes are installed in accordance with the schedule.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this corrective action does not relieve Western Refining Southwest, Inc.- Gallup Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the Gallup Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, August 25, 2009 1:58 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: Final report - Tank 116 spill

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen	
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227	
Facility Name Gallup Refinery	Facility Type Oil refinery	
Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* ☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <u>Mark B. Turri</u>	OIL CONSERVATION DIVISION	
Printed Name: Mark B. Turri	Approved by District Supervisor:	
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:
E-mail Address: <u>mark.turri@wnr.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833	

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

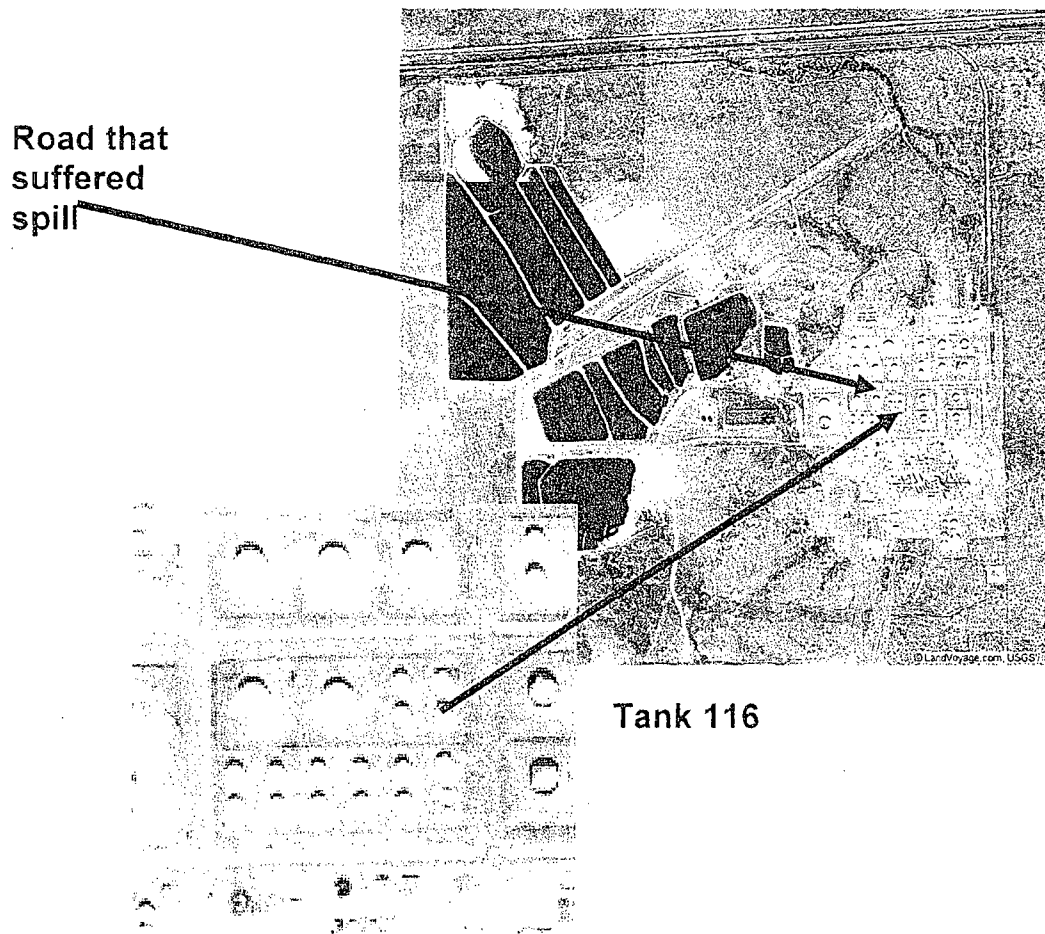
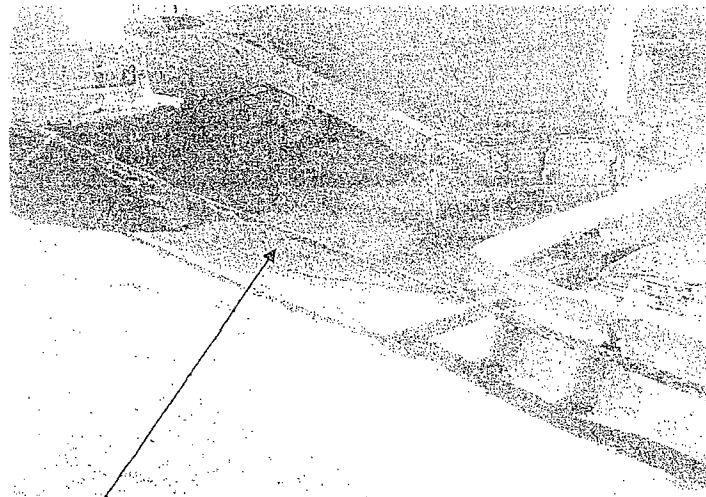


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

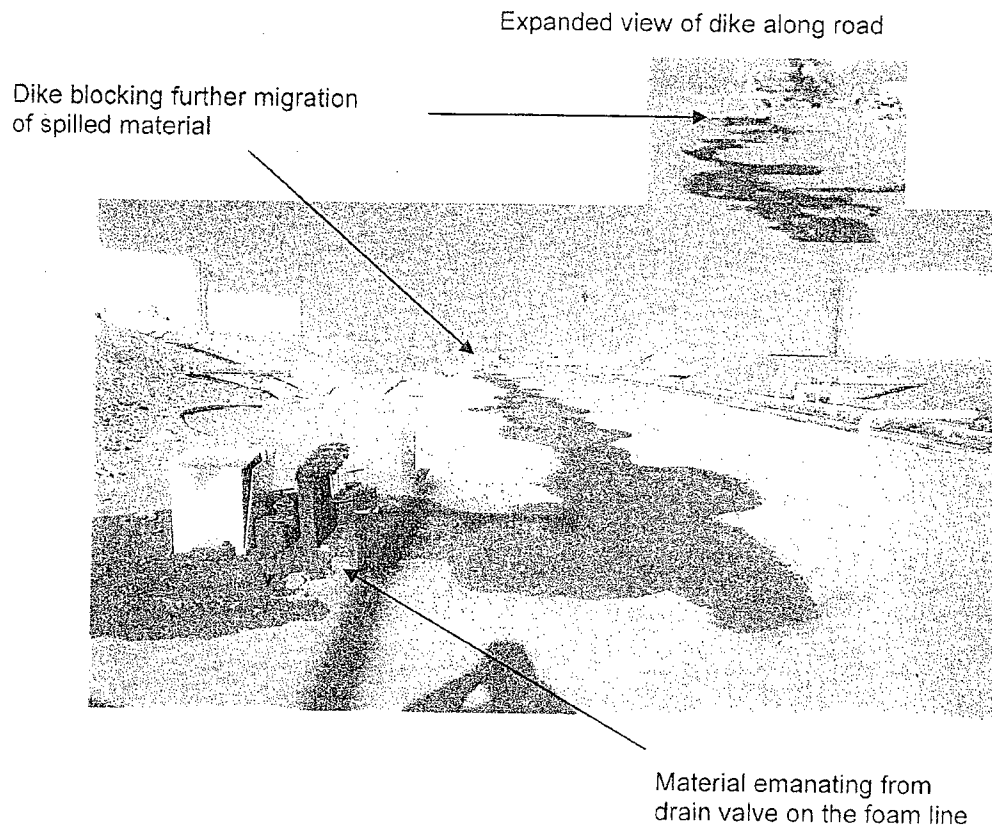


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.



Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.

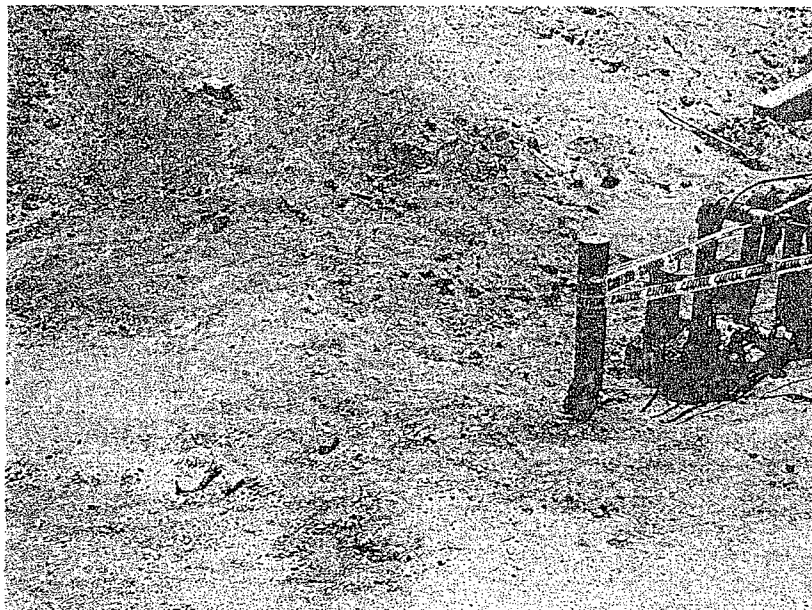


Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank

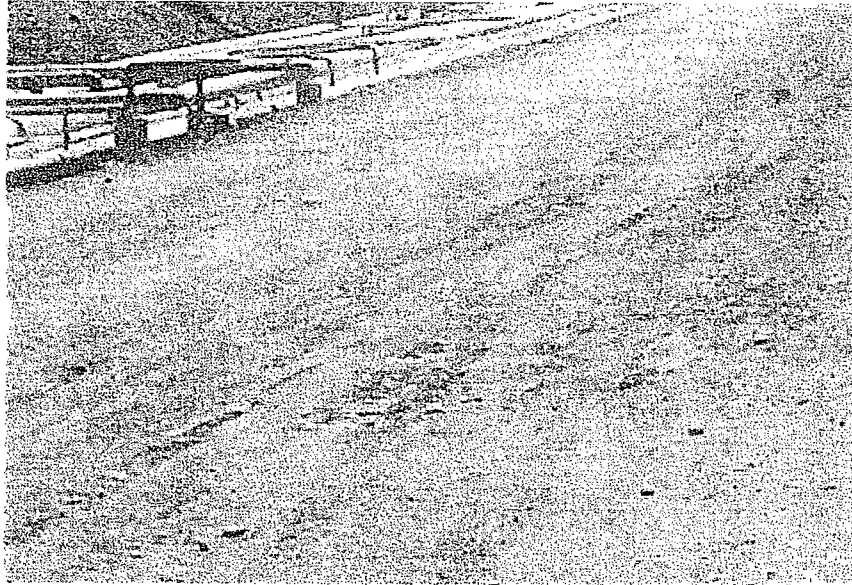


Figure 6: Preliminary clean-up of road which had experienced run-off of product.

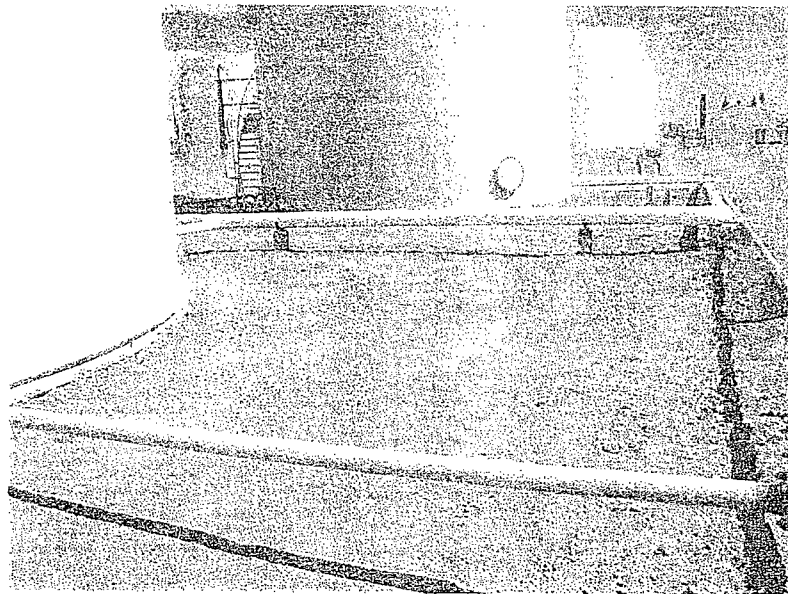


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

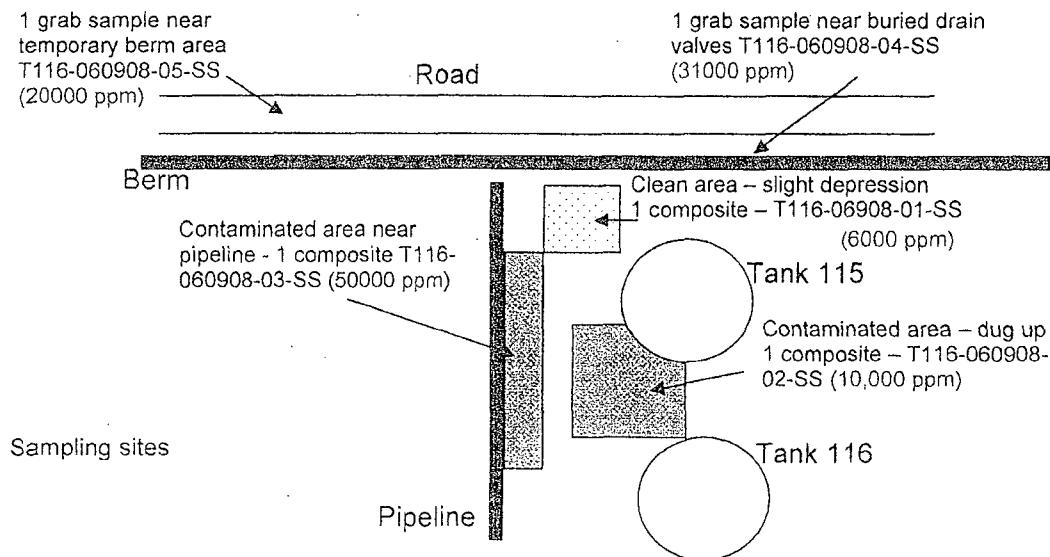


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

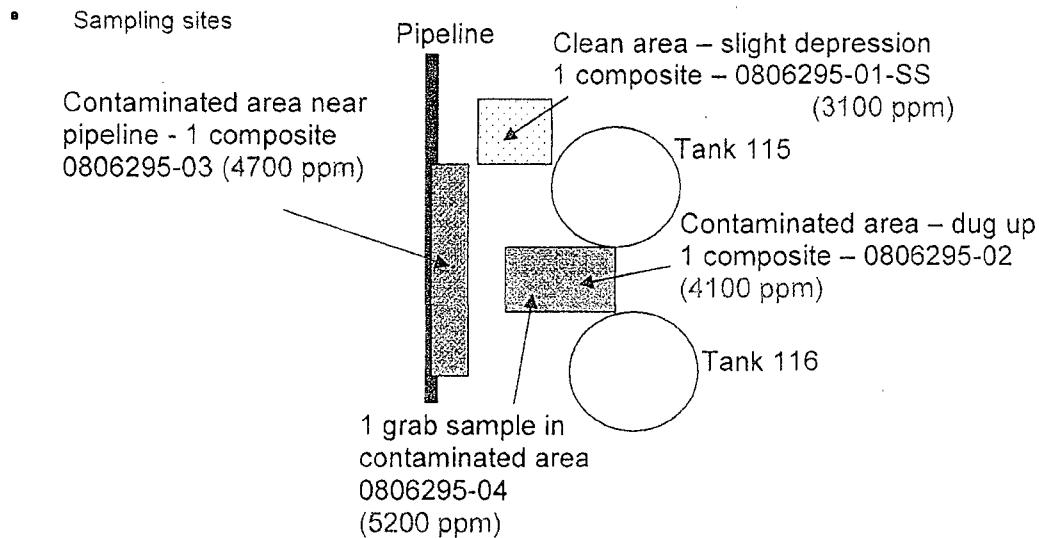


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

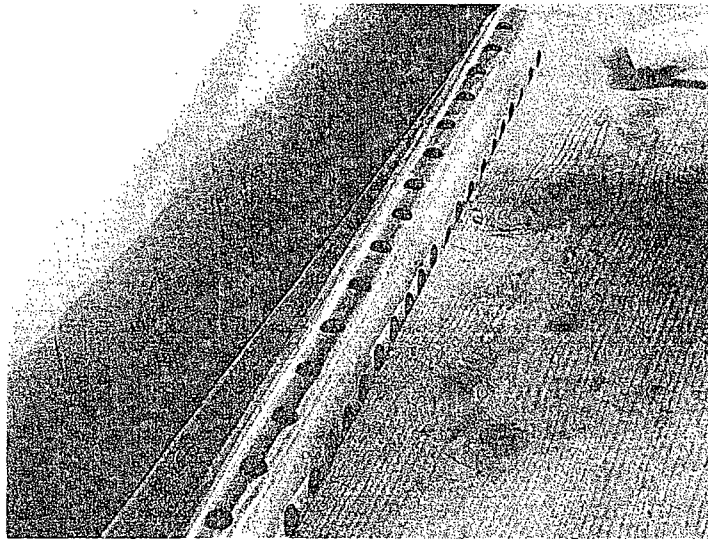


Figure 10: Perforated pipe that has been constructed

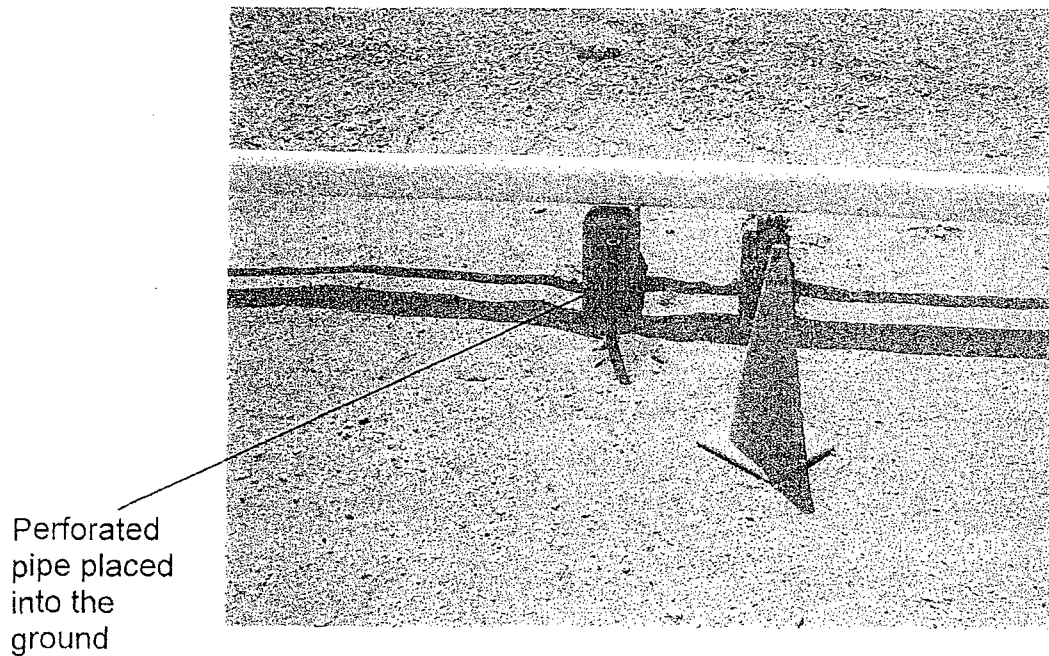


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

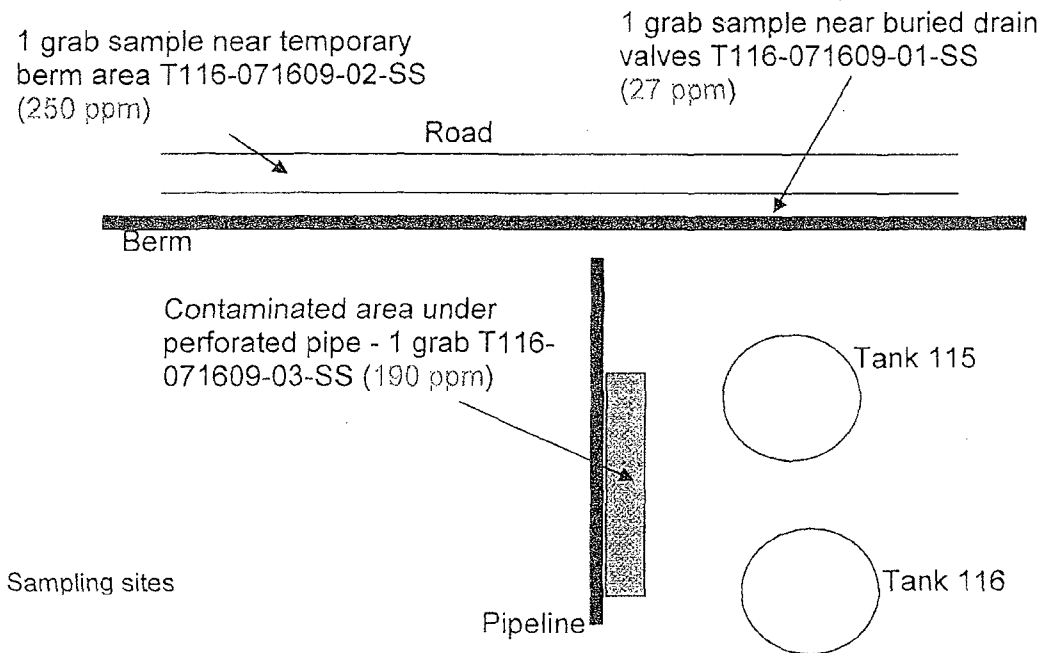


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

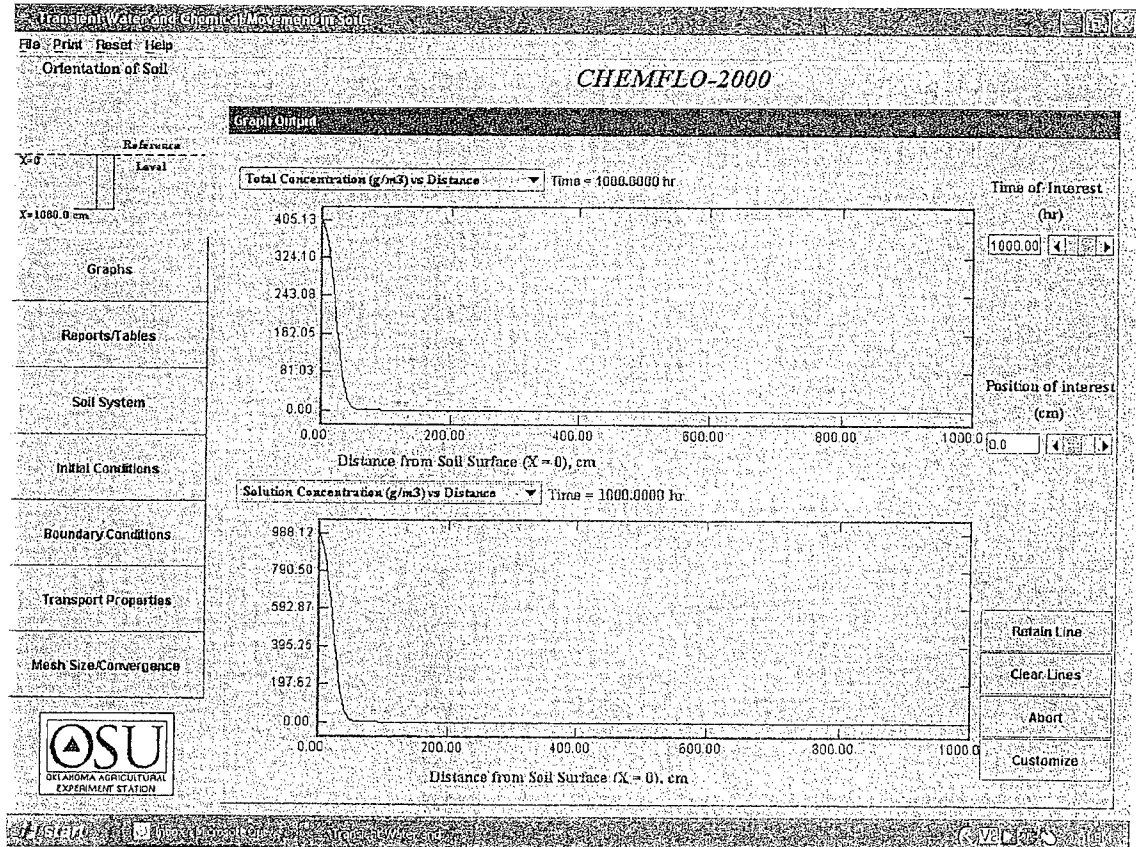


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil:

☒ Finite Length Soil

Soil Length (cm):

☐ Semi-infinite Soil

Angle of Inclination, (degrees):

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m3)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		n = 1.48	α (1/cm) = 0.059		
			n = 1.48		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water (cm ² /hr)	<input type="text" value="0.03528"/>
Dispersivity (cm)	<input type="text" value="0.12"/>
Uniform Partition Coefficient (m ³ /Mg soil)	<input type="text" value="0.995"/>
Uniform 1st-Order Degradation Const. in Liquid (1/hr)	<input type="text" value="0.47"/>
Uniform 1st-Order Degradation Const. on Solids (1/hr)	<input type="text" value="0.0004"/>
Uniform Zero-Order Production Constant (g/m ³ /hr)	<input type="text" value="0.0"/>

Figure A.3: Assumed chemical transport properties

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Tuesday, August 17, 2010 2:57 PM
To: 'Riege, Ed'
Cc: 'Coleman.Simth@state.nm.us'; Van Horn, Kristen, NMENV; VonGonten, Glenn, EMNRD
Subject: Initial C-141 T-116 Release Ultra-Low Sulfur Diesel Signed 8/20/2009 & Corrective Action (CA) Update (GW-032)

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Carl J. Chavez, CHMM
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Oil Conservation Division, Environmental Bureau
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(Pollution Prevention Guidance is under "Publications")

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, September 21, 2009 10:59 AM
To: 'Rajen, Gaurav'; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: RE: Final report - Tank 116 spill

Raj:

Re: Final Report Section 4.0 Conclusions below.

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

Approved. Please provide a schedule for installing the perforated pipes as proposed and notify the agencies when the pipes are installed in accordance with the schedule.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this corrective action does not relieve Western Refining Southwest, Inc., Gallup Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the Gallup Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, August 25, 2009 1:58 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: Final report - Tank 116 spill

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, August 25, 2009 1:58 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: Final report - Tank 116 spill
Attachments: C-141-final signed.pdf; Soil samples 6-09.pdf; Soil samples 6-17.pdf; Samples - July 2009.pdf; C-141 final-report 8-25-2009.doc

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Dear Carl:

It is a pleasure to send you our final report for our Tank 116 spill of Ultra Low Sulfur Diesel which we have cleaned up. Two paper copies will go out in the mail today. Electronic copies are attached.

As you will note in the report, we excavated soil from within our berm area up to two feet. As there are active pipelines in the area, and ongoing work activity, we found it difficult to excavate any further near the pipelines, and had to cover our excavation with clean soil to prevent any hazard to workers in the area. This covering was done before our second set of laboratory results had arrived, for safety reasons. Our first set of laboratory results showed levels of DRO around 50,000 ppm. After excavation the DRO levels were of the order of 4000-6000 ppm (no BTEX was detected). As these levels were below 2 feet, we believe they did not come from the recent Tank 116 spill. We have conducted a small test at one of these locations of passive venting, using a perforated pipe to get air into the ground. The levels below the perforated pipe have fallen from 4700 ppm to 190 ppm. With your concurrence, we could now place more such perforated pipes in the area and we believe we will be able to reduce all the areas that were found to have DRO levels around 4000-6000 ppm to below concern. If we place many such perforated pipes we will also get concurrence (as needed) from the NMED's Air Quality Bureau.

We look forward to your response at your earliest convenience,

Sincerely,

Gaurav Rajen

This inbound email has been scanned by the MessageLabs Email Security System.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen	
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227	
Facility Name Gallup Refinery	Facility Type Oil refinery	
Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully. * Not applicable

Describe Cause of Problem and Remedial Action Taken. * ☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank/berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken. *

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <u>Mark B. Turri</u>	OIL CONSERVATION DIVISION	
Printed Name: Mark B. Turri	Approved by District Supervisor:	
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:
E-mail Address: <u>mark.turri@wnr.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833	

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

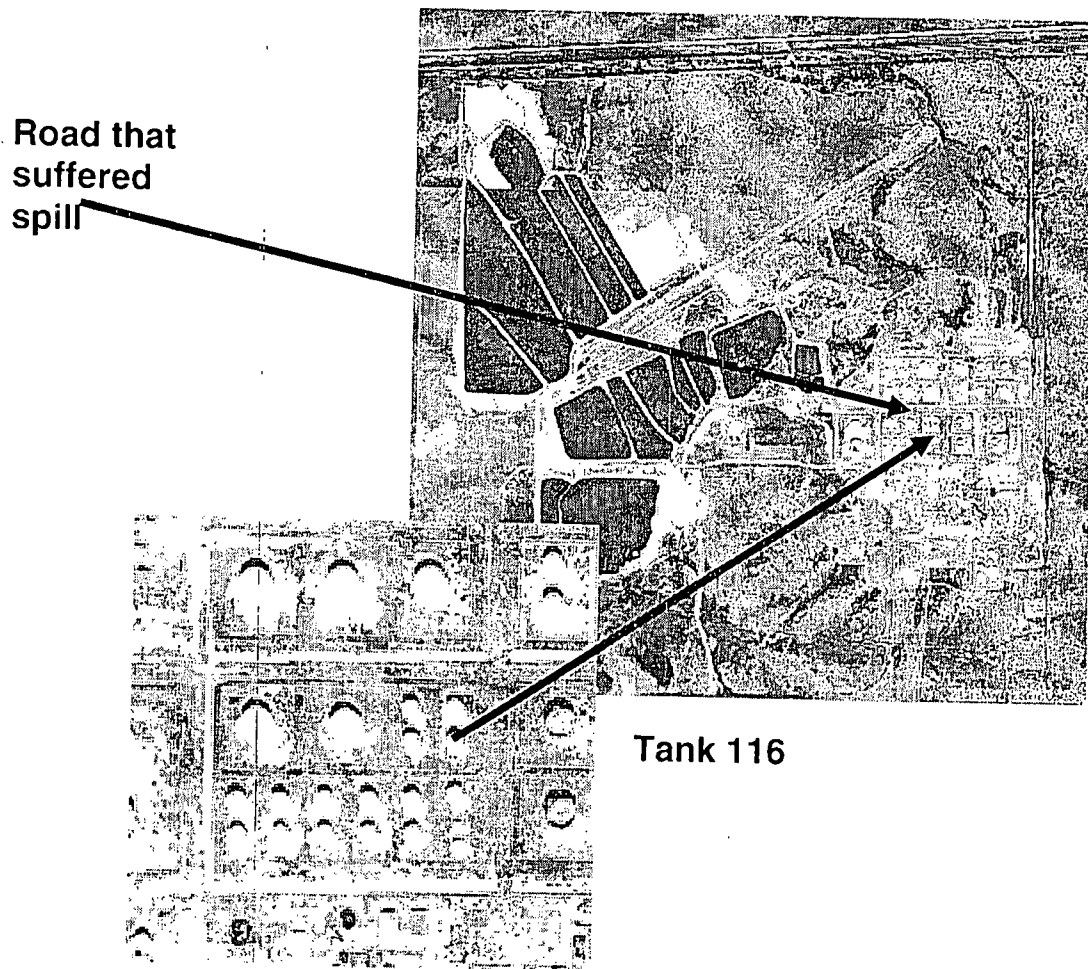
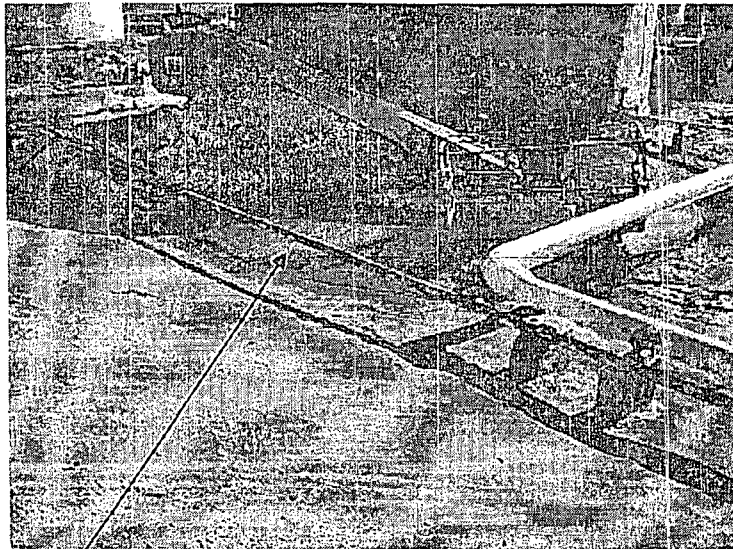


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

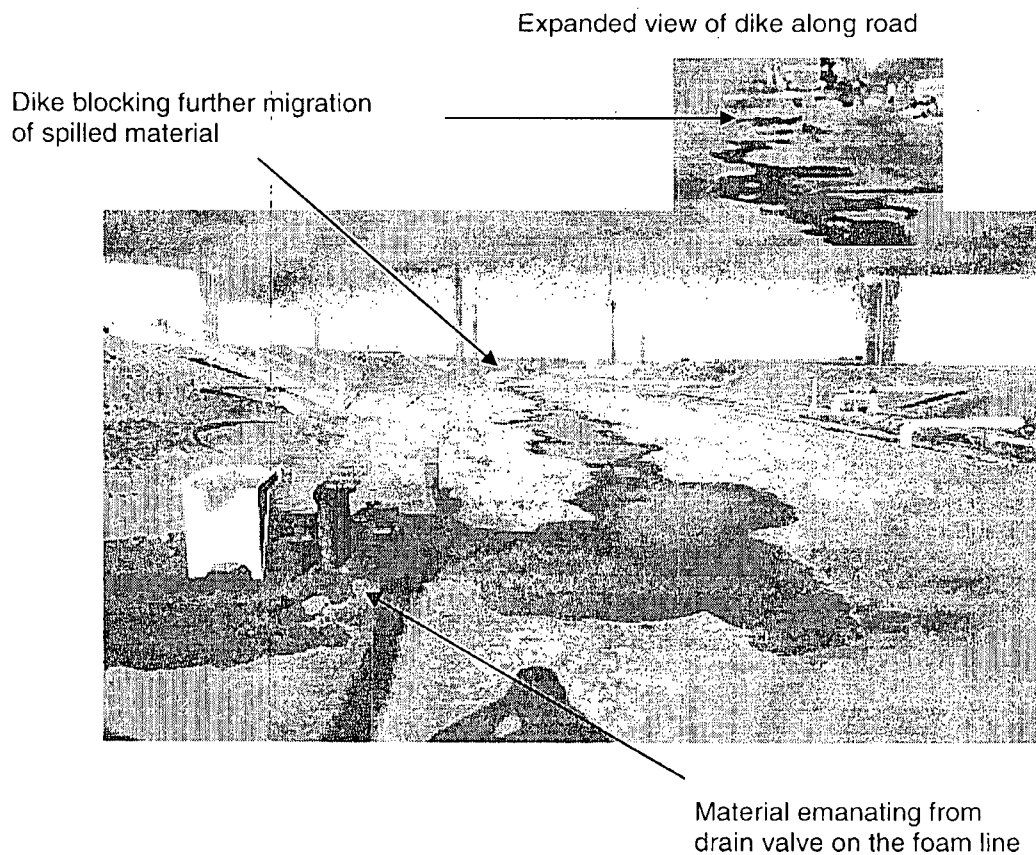


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.

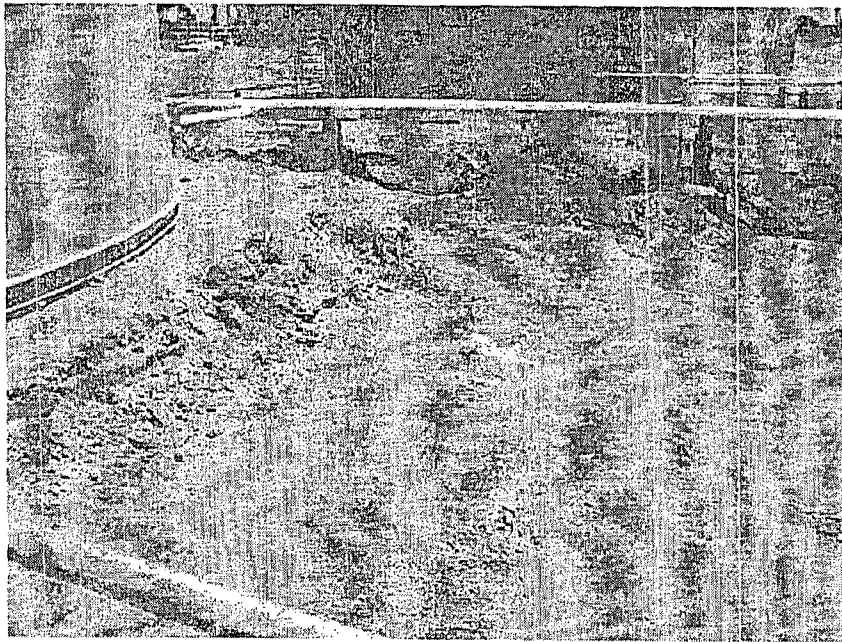


Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.

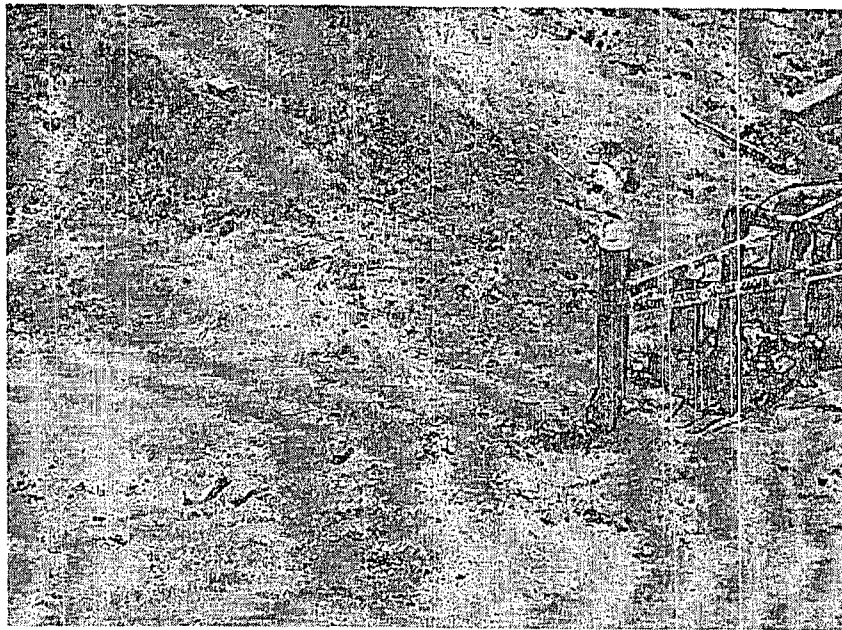


Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank

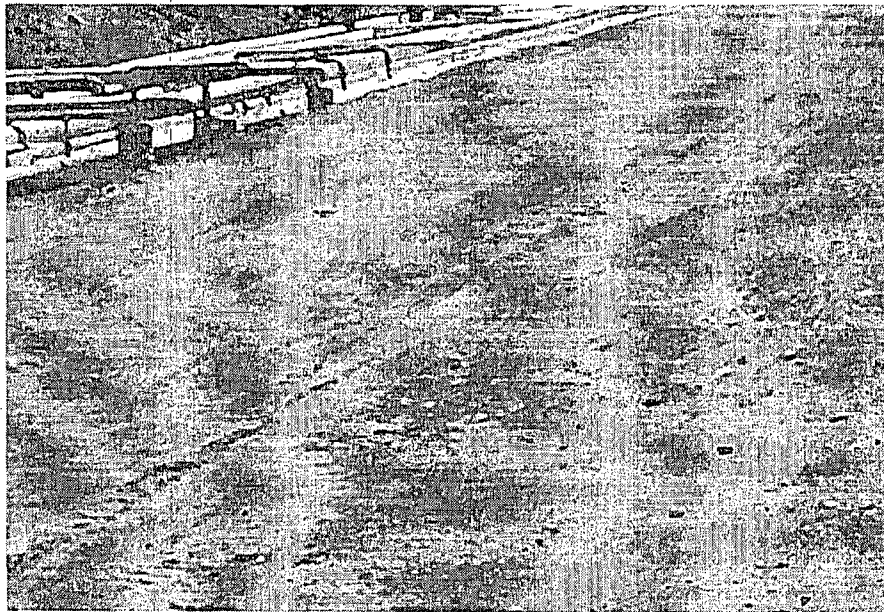


Figure 6: Preliminary clean-up of road which had experienced run-off of product.

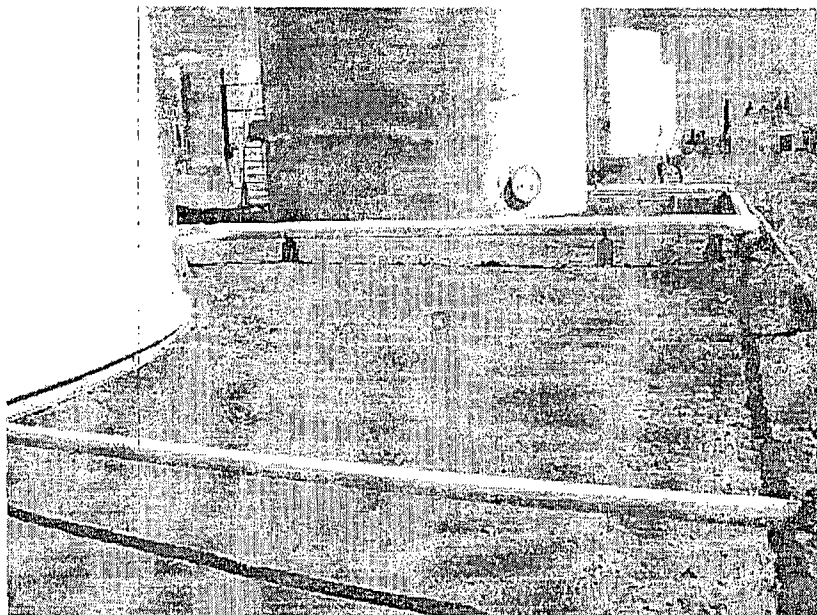


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

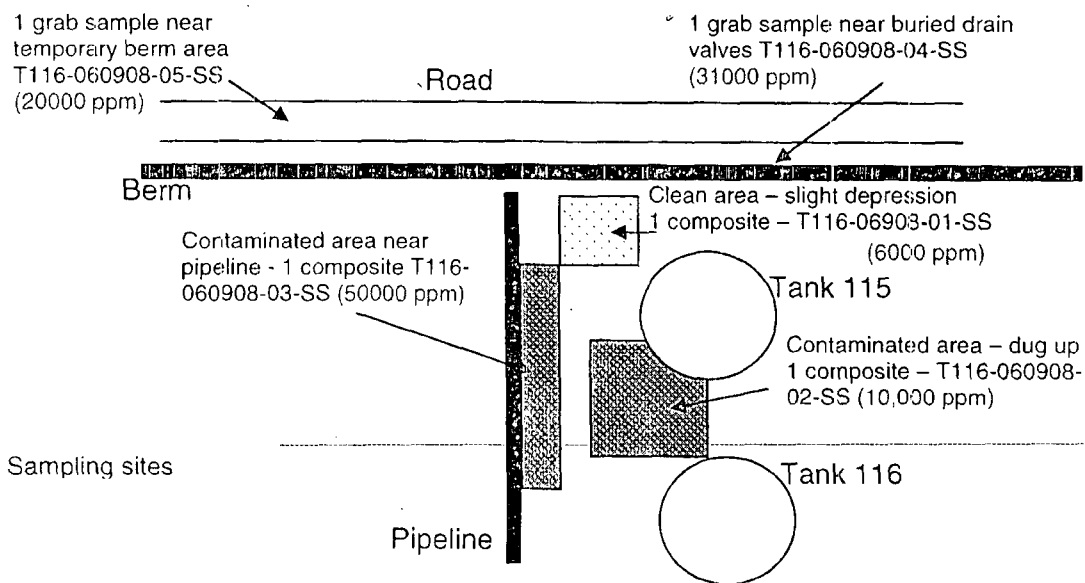


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

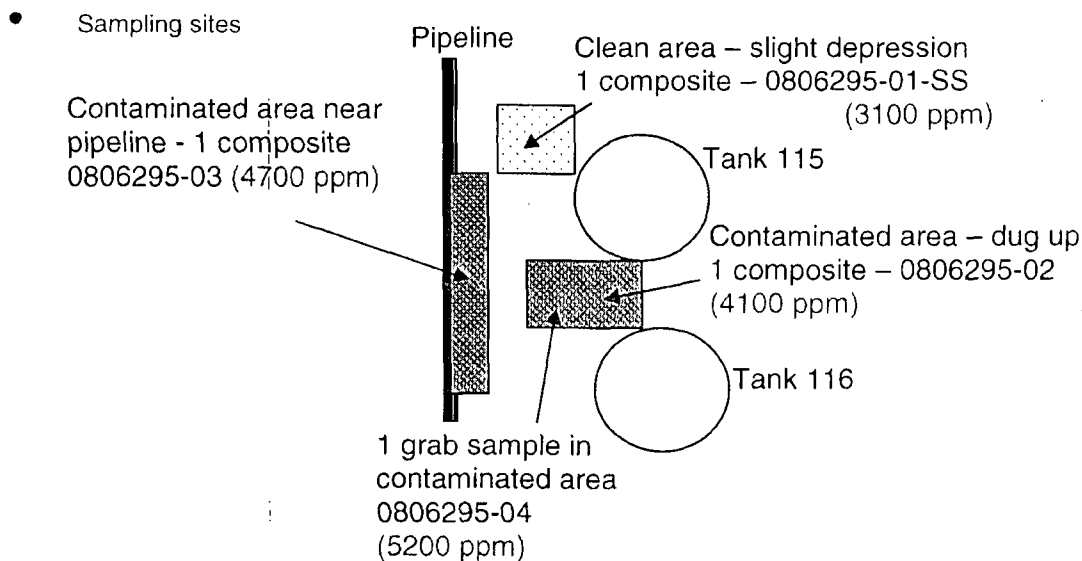


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

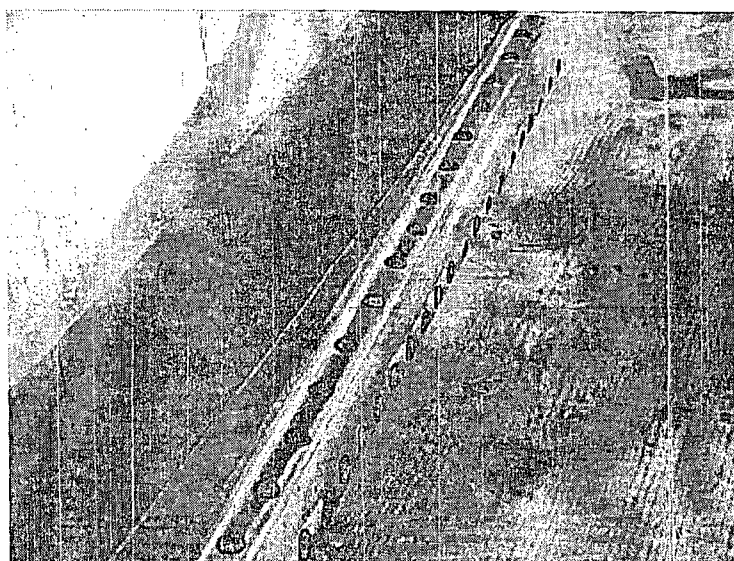


Figure 10: Perforated pipe that has been constructed

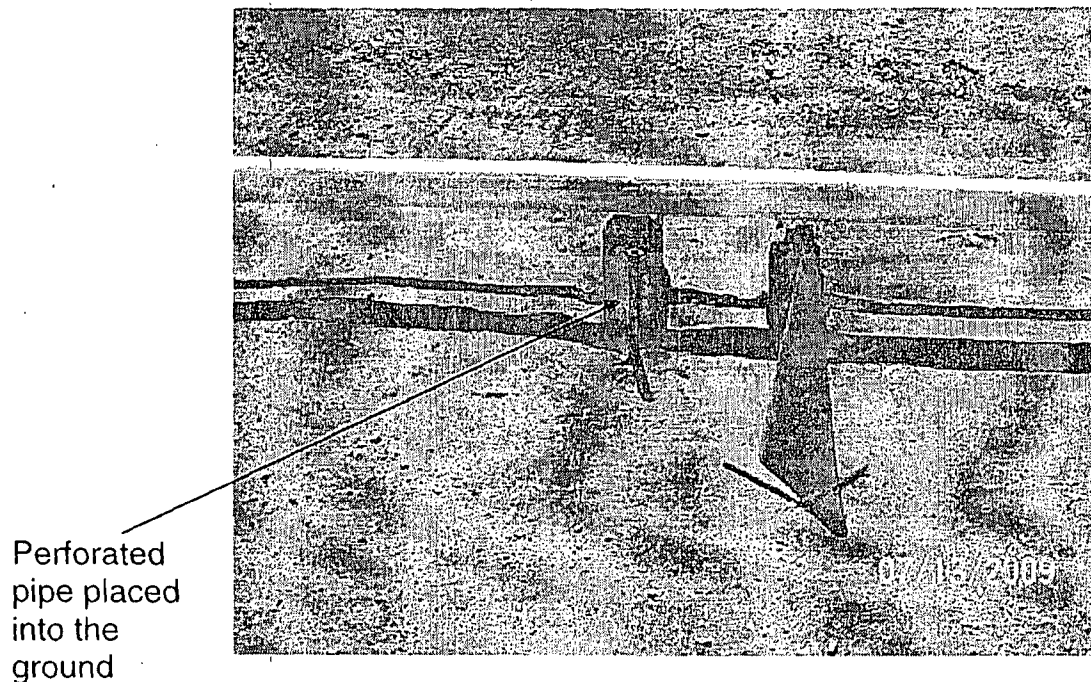


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

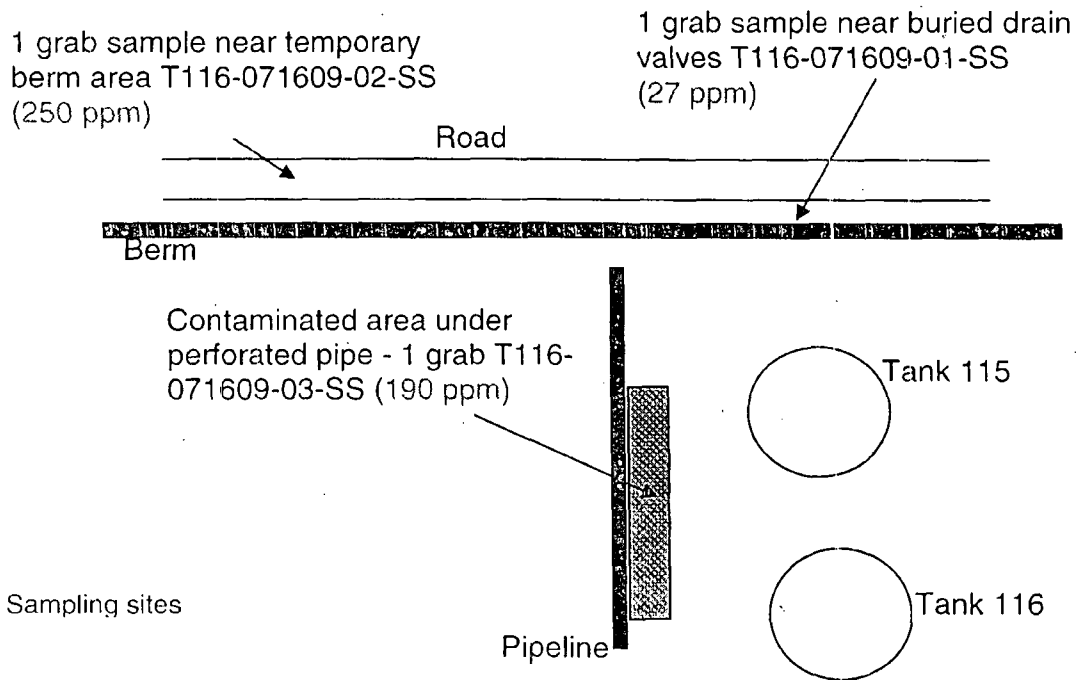


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

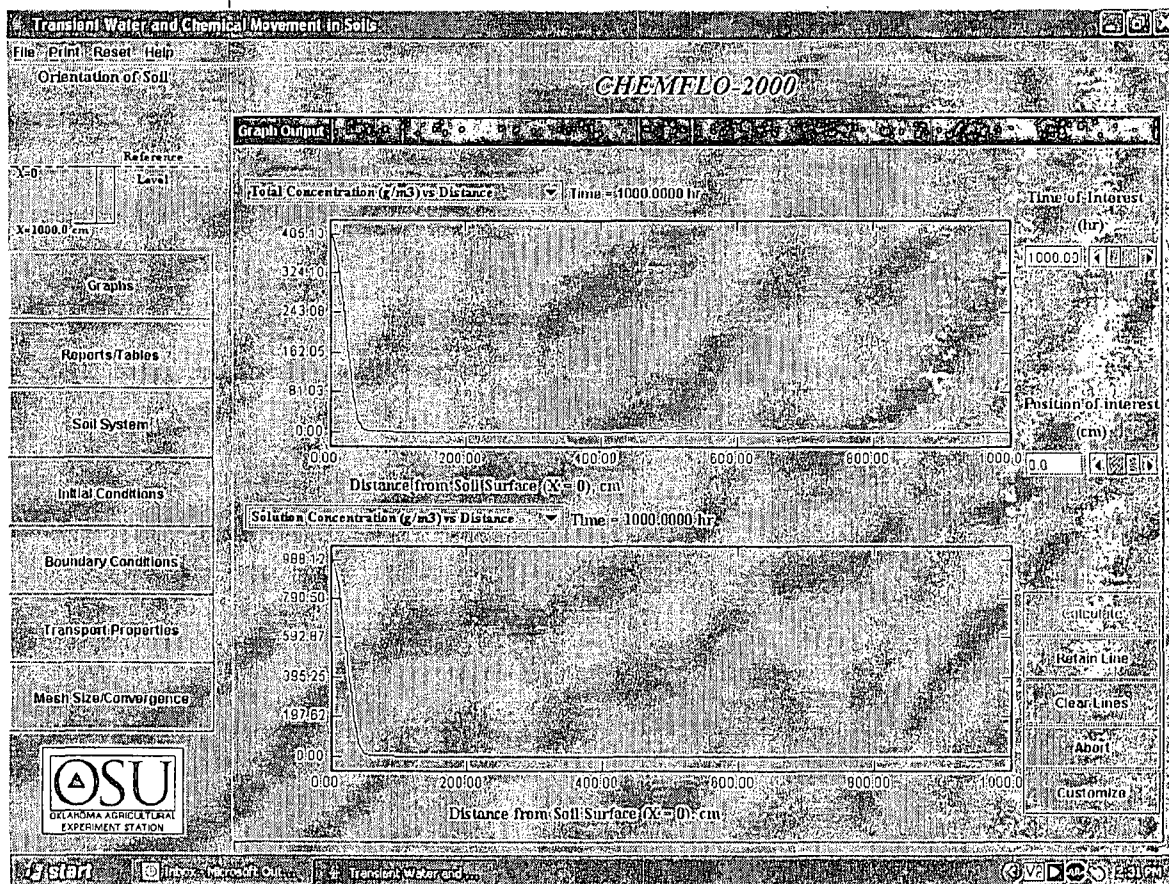


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil:

☒ Finite Length Soil

Soil Length (cm):

☐ Semi-infinite Soil

Angle of Inclination, (degrees):

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m ³)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		$n = 1.48$	α (1/cm) = 0.059		
			$n = 1.48$		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water (cm ² /hr)	<input type="text" value="0.03528"/>
Dispersivity (cm)	<input type="text" value="0.12"/>
Uniform Partition Coefficient (m ³ /Mg soil)	<input type="text" value="0.095"/>
Uniform 1st-Order Degradation Const. in Liquid (1/hr)	<input type="text" value="0.47"/>
Uniform 1st-Order Degradation Const. on Solids (1/hr)	<input type="text" value="0.0004"/>
Uniform Zero-Order Production Constant (g/m ³ /hr)	<input type="text" value="0.0"/>

Figure A.3: Assumed chemical transport properties



COVER LETTER

Friday, June 13, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank-116-Spill Site

Order No.: 0806136

Dear Gaurav Rajen:

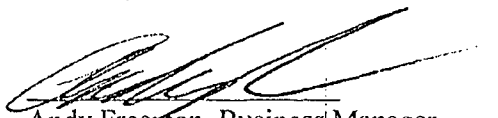
Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 6/10/2008 for the analyses presented in the following report.

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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site
Lab Order: 0806136

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site

Lab Order: 0806136

Lab ID: 0806136-01

Collection Date: 6/9/2008 9:00:00 AM

Client Sample ID: T-116-060908-01-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:26 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:26 PM

Analyst: SCC

Lab ID: 0806136-02

Collection Date: 6/9/2008 9:05:00 AM

Client Sample ID: T-116-060908-02-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Analyst: SCC

Lab ID: 0806136-03

Collection Date: 6/9/2008 9:10:00 AM

Client Sample ID: T-116-060908-03-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Analyst: SCC

Lab ID: 0806136-04

Collection Date: 6/9/2008 9:15:00 AM

Client Sample ID: T-116-060908-04-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 PM

Analyst: SCC

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: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-05**Collection Date:** 6/9/2008 9:20:00 AM**Client Sample ID:** T-116-060908-05-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRC)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 PM

Analyst: SCC

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- I 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, Gallup

Project: Tank-116-Spill Site

Work Order: 0806136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16176		MBLK							
			Batch ID: 16175				Analysis Date: 6/12/2008 5:32:13 PM		
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16175		LCS							
			Batch ID: 16175				Analysis Date: 6/12/2008 6:08:34 PM		
Diesel Range Organics (DRO)	38.04	mg/Kg	10	76.1	64.6	116			
Sample ID: LCSD-16175		LCSD							
			Batch ID: 16175				Analysis Date: 6/12/2008 6:41:01 PM		
Diesel Range Organics (DRO)	35.48	mg/Kg	10	71.0	64.6	116	6.98	17.4	

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 GALLU

Date Received:

6/10/2008

Work Order Number 0805136

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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?

1°

<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, June 25, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX: (505) 722-0210

RE: Tank 116 Spill Site

Order No.: 0806295

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 6/19/2008 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", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup

Project: Tank 116 Spill Site

Lab Order: 0806295

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0806295-01A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup**Client Sample ID:** T-116-061708-01SS**Lab Order:** 0806295**Collection Date:** 6/17/2008 1:30:00 PM**Project:** Tank 116 Spill Site**Date Received:** 6/19/2008**Lab ID:** 0806295-01**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3100	200		mg/Kg	20	6/21/2008 10:51:57 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 10:51:57 AM
Surr: DNOP	0	61.7-135	S	%REC	20	6/21/2008 10:51:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: BFB	90.5	84-138		%REC	20	6/25/2008 4:21:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: 4-Bromofluorobenzene	87.7	81.4-117		%REC	20	6/25/2008 4:21:31 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

Page 1 of 4

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-02

Client Sample ID: T-116-061708-02SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4100	100		mg/Kg	10	6/21/2008 11:26:21 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	6/21/2008 11:26:21 AM
Surr: DNOP	88.8	61.7-135		%REC	10	6/21/2008 11:26:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: BFB	93.5	84-138		%REC	20	6/25/2008 4:51:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: 4-Bromofluorobenzene	91.1	81.4-117		%REC	20	6/25/2008 4:51:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: T-116-061708-03SS

Lab Order: 0806295

Collection Date: 6/17/2008 1:30:00 PM

Project: Tank 116 Spill Site

Date Received: 6/19/2008

Lab ID: 0806295-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4700	200		mg/Kg	20	6/21/2008 12:00:45 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 12:00:45 PM
Surr: DNOP	120	61.7-135		%REC	20	6/21/2008 12:00:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: BFB	92.4	84-138		%REC	20	6/25/2008 5:21:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: 4-Bromofluorobenzene	89.0	81.4-117		%REC	20	6/25/2008 5:21:35 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-04

Client Sample ID: T-116-061708-04SS
Collection Date: 6/17/2008 4:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5200	200		mg/Kg	20	6/21/2008 1:09:31 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 1:09:31 PM
Surr: ONOP	96.8	61.7-135		%REC	20	6/21/2008 1:09:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: BFB	102	84-138		%REC	20	6/25/2008 5:51:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: 4-Bromofluorobenzene	101	81.4-117		%REC	20	6/25/2008 5:51:32 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, Gallup
 Project: Tank 116 Spill Site

Work Order: 0806295

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16266		MBLK			Batch ID: 16266	Analysis Date: 6/20/2008 1:24:03 AM			
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16266		LCS			Batch ID: 16266	Analysis Date: 6/20/2008 1:58:25 AM			
Diesel Range Organics (DRO)	33.93	mg/Kg	10	67.9	64.6	116			
Sample ID: LCSD-16266		LCSD			Batch ID: 16266	Analysis Date: 6/20/2008 2:32:46 AM			
Diesel Range Organics (DRO)	33.99	mg/Kg	10	68.0	64.6	116	0.177	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-16271		MBLK			Batch ID: 16271	Analysis Date: 6/25/2008 2:48:53 AM			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-16271		LCS			Batch ID: 16271	Analysis Date: 6/25/2008 1:18:42 AM			
Gasoline Range Organics (GRO)	24.56	mg/Kg	5.0	87.4	69.5	120			
Sample ID: LCSD-16271		LCSD			Batch ID: 16271	Analysis Date: 6/25/2008 1:48:48 AM			
Gasoline Range Organics (GRO)	25.01	mg/Kg	5.0	89.2	69.5	120	1.82	11.6	
Method: EPA Method 8021B: Volatiles									
Sample ID: MB-16271		MBLK			Batch ID: 16271	Analysis Date: 6/25/2008 2:48:53 AM			
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-16271		LCS			Batch ID: 16271	Analysis Date: 6/25/2008 1:18:42 AM			
Benzene	0.2928	mg/Kg	0.050	105	78.8	132			
Toluene	2.030	mg/Kg	0.050	101	78.9	112			
Ethylbenzene	0.4135	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	2.465	mg/Kg	0.10	107	73	128			
Sample ID: LCSD-16271		LCSD			Batch ID: 16271	Analysis Date: 6/25/2008 1:48:48 AM			
Benzene	0.2963	mg/Kg	0.050	106	78.8	132	1.19	27	
Toluene	2.037	mg/Kg	0.050	101	78.9	112	0.354	19	
Ethylbenzene	0.4119	mg/Kg	0.050	103	69.3	125	0.388	10	
Xylenes, Total	2.470	mg/Kg	0.10	107	73	128	0.190	13	

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 GALLU

Date Received:

6/19/2008

Work Order Number 0806295

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input checked="" 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?

16°

<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, July 31, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0227

FAX (505) 722-0210

RE: T116

Order No.: 0907508

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/28/2009 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,

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

For Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116

Lab Order: 0907508

Lab ID: 0907508-01
Client Sample ID: T1160716090155

Collection Date: 7/16/2009 2:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02
Client Sample ID: T1160716090255

Collection Date: 7/16/2009 2:15:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03
Client Sample ID: T1160716090355

Collection Date: 7/16/2009 2:25:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: TI16

Work Order: 0907508

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

Sample ID: MB-19724 MBLK Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

Sample ID: LCS-19724 LCS Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) 35.49 mg/Kg 10 71.0 64.6 116

Sample ID: LCSD-19724 LCSD Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) 41.25 mg/Kg 10 82.5 64.6 116 15.0 17.4

Method: EPA Method 8015B: Gasoline Range

Sample ID: MB-19740 MBLK Batch ID: 19740 Analysis Date: 7/30/2009 8:17:32 PM

Gasoline Range Organics (GRO) ND mg/Kg 5.0

Sample ID: LCS-19740 LCS Batch ID: 19740 Analysis Date: 7/30/2009 7:16:37 PM

Gasoline Range Organics (GRO) 30.59 mg/Kg 5.0 112 64.4 133

Sample ID: LCSD-19740 LCSD Batch ID: 19740 Analysis Date: 7/30/2009 7:47:11 PM

Gasoline Range Organics (GRO) 30.13 mg/Kg 5.0 110 69.5 120 1.52 11.6

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 GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Sample ID labels checked by:

Checklist completed by:

Signature

Date

Initials

Matrix:

Carrier name Client drop-off

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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"/>	Number of preserved bottles checked for pH:
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"/>	<2 >12 unless noted below.
Container/Temp Blank temperature?	8.6°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



GALLUP REFINERY

WNR
LISTED
NYSE

RECEIVED

2009 AUG 28 AM 10 50

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

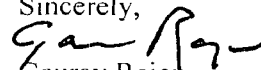
Dear Carl:

It is a pleasure to send you our final report for our Tank 116 spill of Ultra Low Sulfur Diesel which we have cleaned up.

As you will note in the report, we excavated soil from within our berm area up to two feet. As there are active pipelines in the area, and ongoing work activity, we found it difficult to excavate any further near the pipelines, and had to cover our excavation with clean soil to prevent any hazard to workers in the area. This covering was done before our second set of laboratory results had arrived, for safety reasons. Our first set of laboratory results showed levels of DRO around 50,000 ppm. After excavation the DRO levels were of the order of 4000-6000 ppm (no BTEX was detected). As these levels were below 2 feet, we believe they did not come from the recent Tank 116 spill. We have conducted a small test at one of these locations of passive venting, using a perforated pipe to get air into the ground. The levels below the perforated pipe have fallen from 4700 ppm to 190 ppm. With your concurrence, we could now place more such perforated pipes in the area and we believe we will be able to reduce all the areas that were found to have DRO levels around 4000-6000 ppm to below concern. If we place many such perforated pipes we will also get concurrence (as needed) from the NMED's Air Quality Bureau.

We look forward to your response at your earliest convenience,

Sincerely,


Gaurav Rajen

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen	
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227	
Facility Name Gallup Refinery	Facility Type Oil refinery	
Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <i>Mark B. Turri</i>	OIL CONSERVATION DIVISION		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:	
E-mail Address: mark.turri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833		

• Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

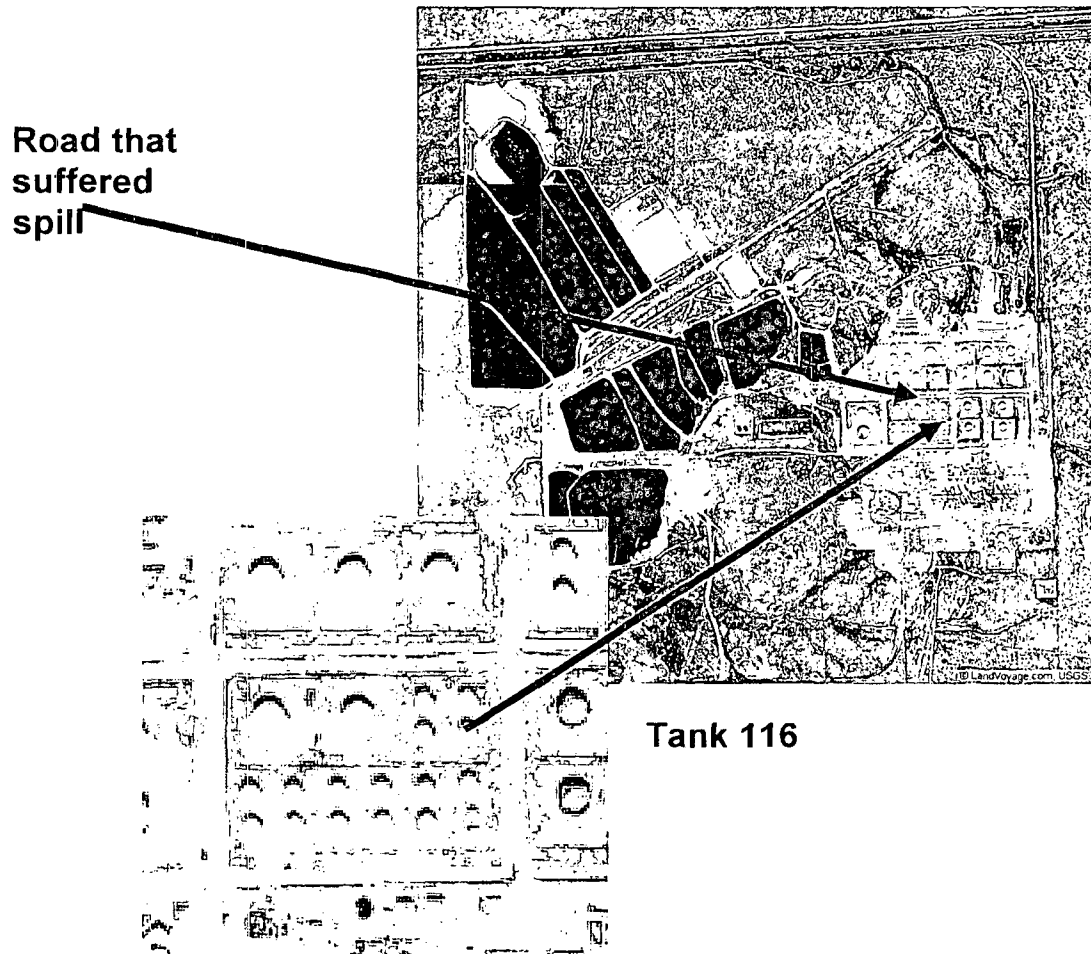
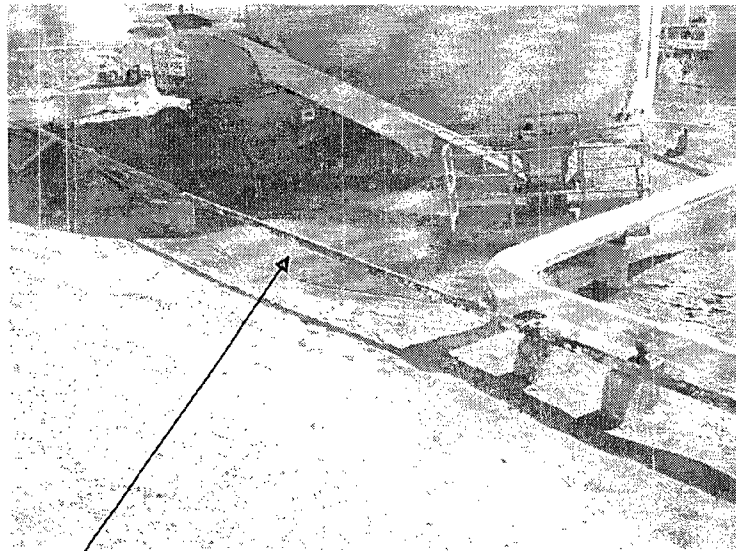


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

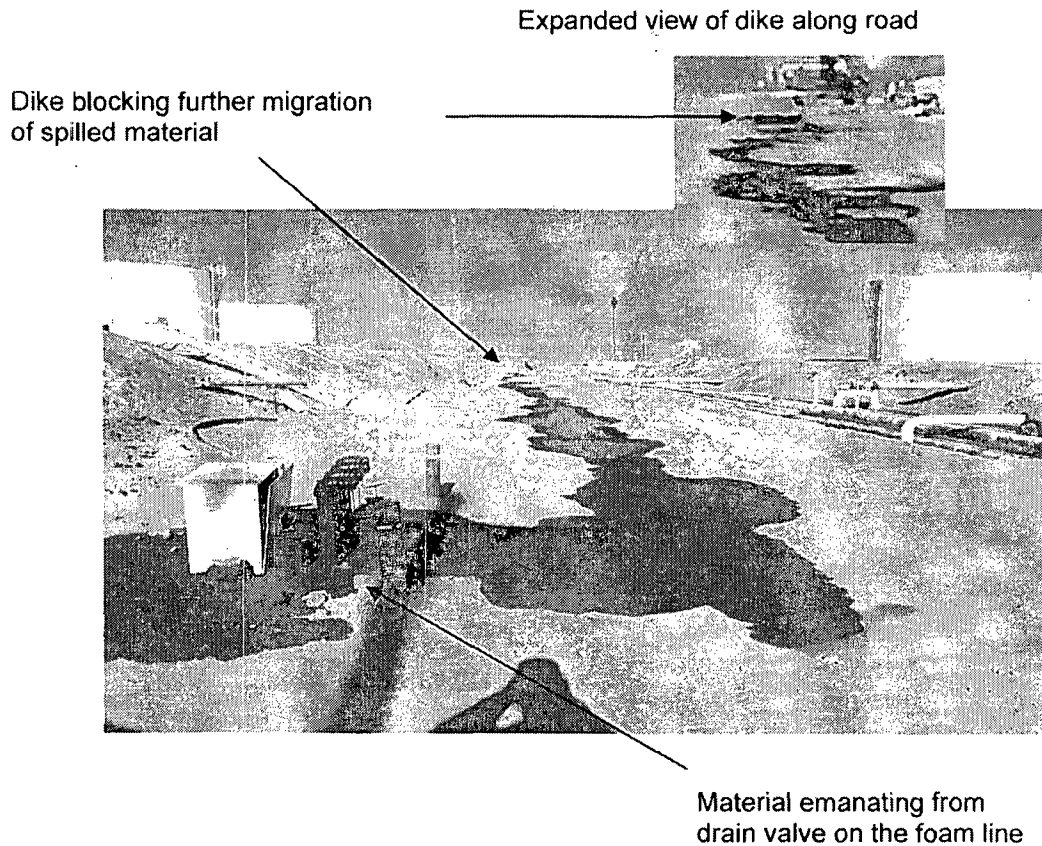


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.



Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.

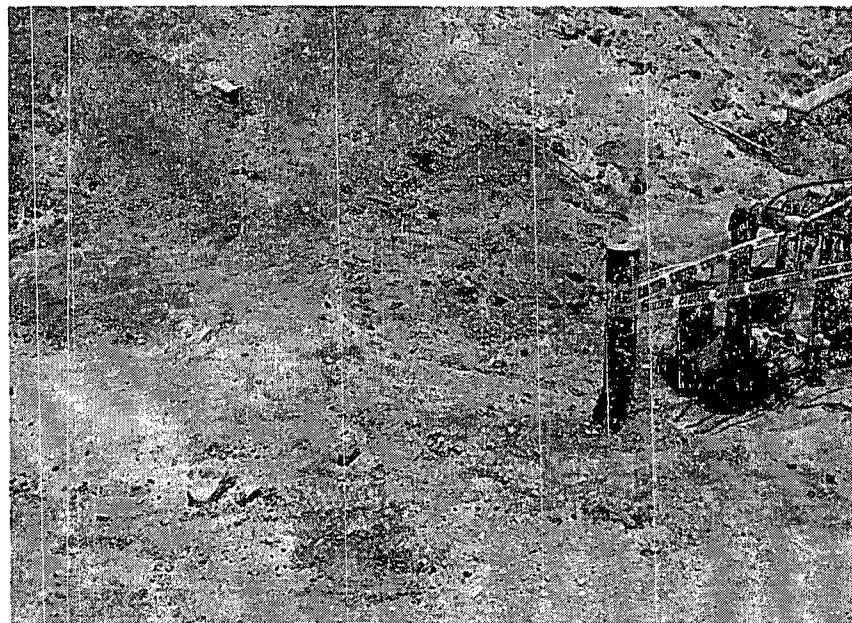


Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank



Figure 6: Preliminary clean-up of road which had experienced run-off of product.

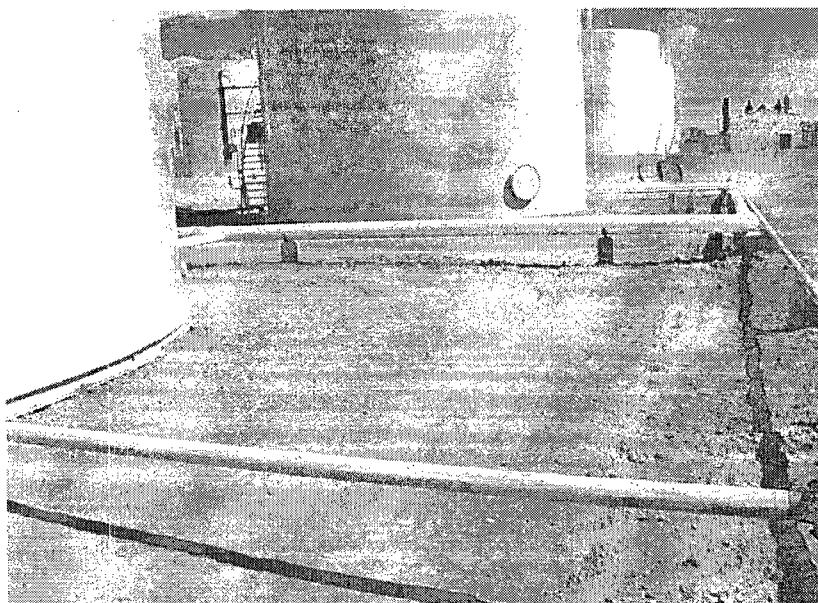


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

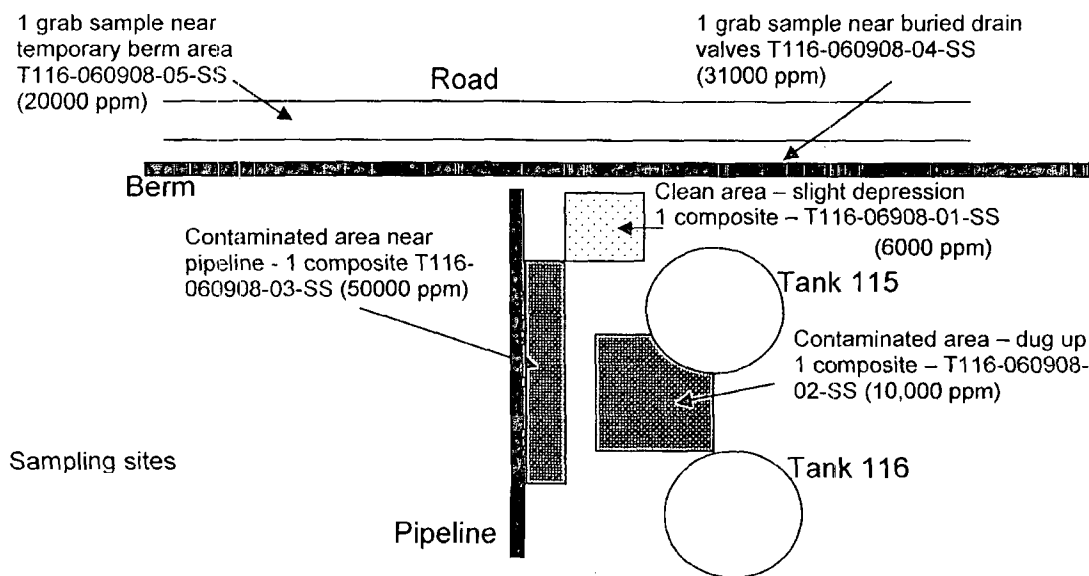


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

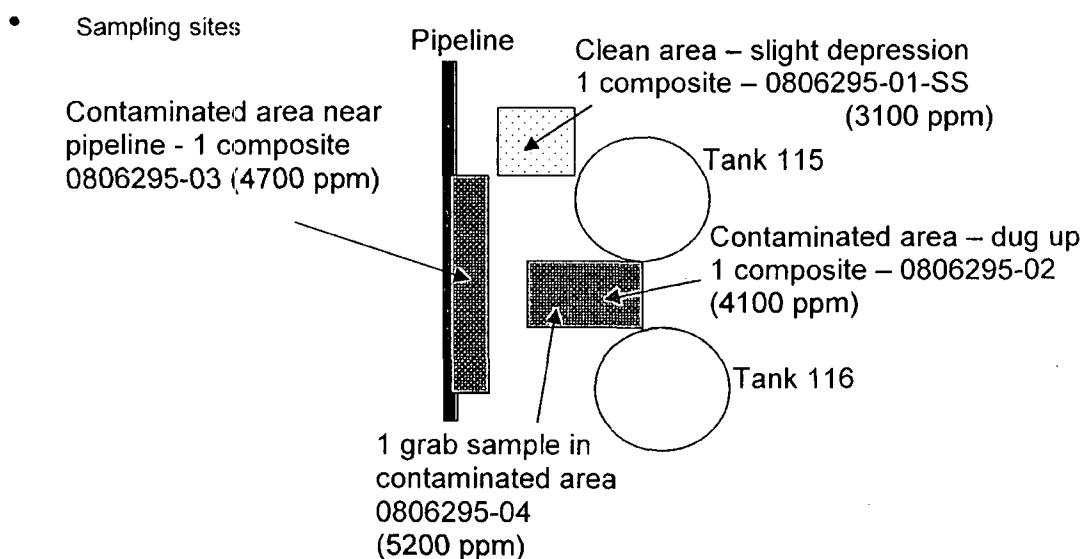


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

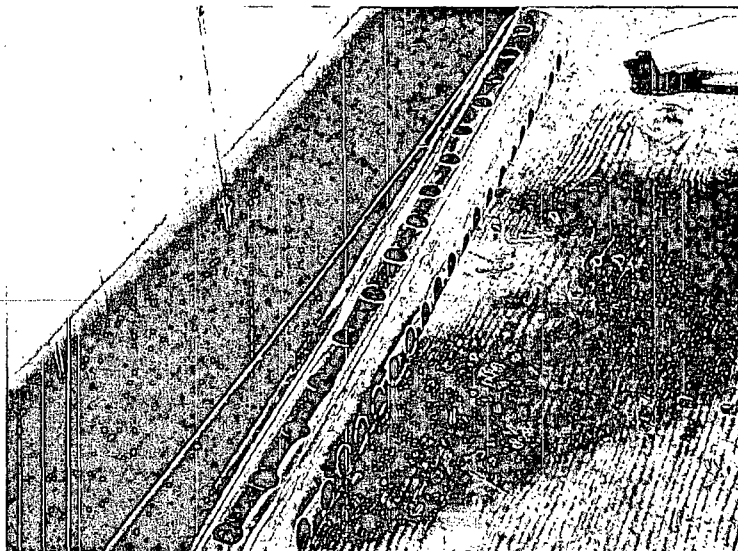


Figure 10: Perforated pipe that has been constructed

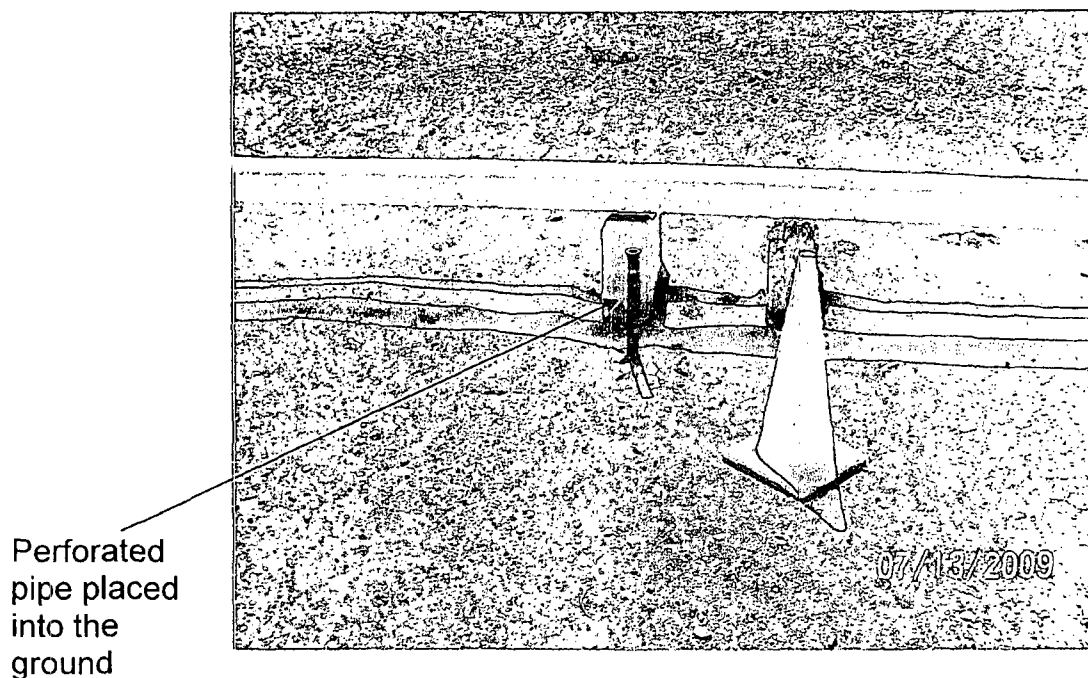


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

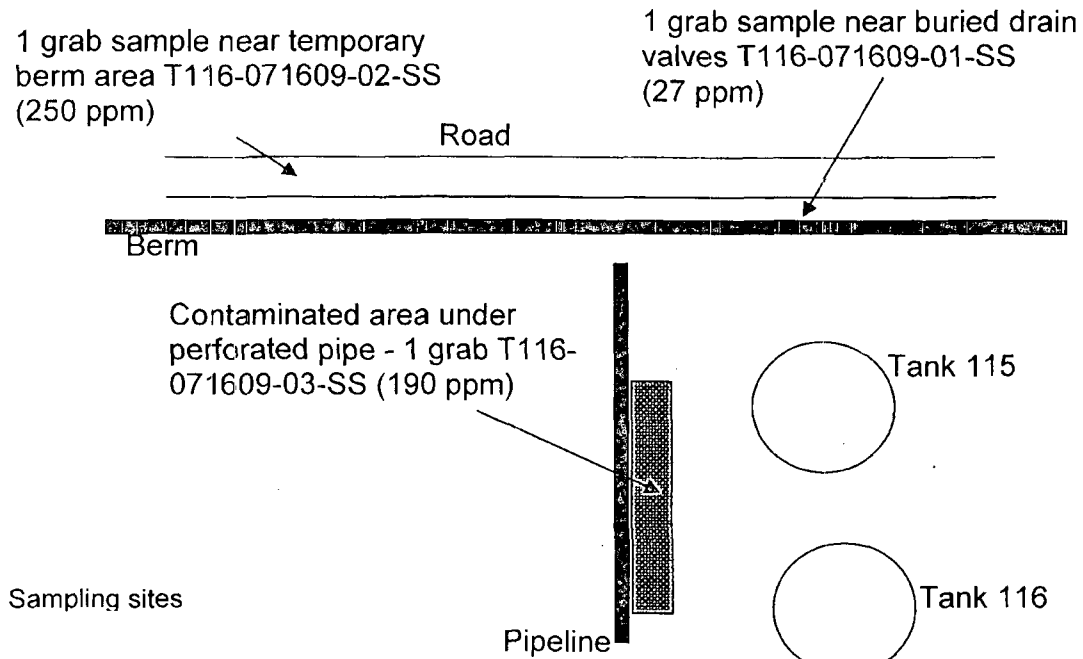


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

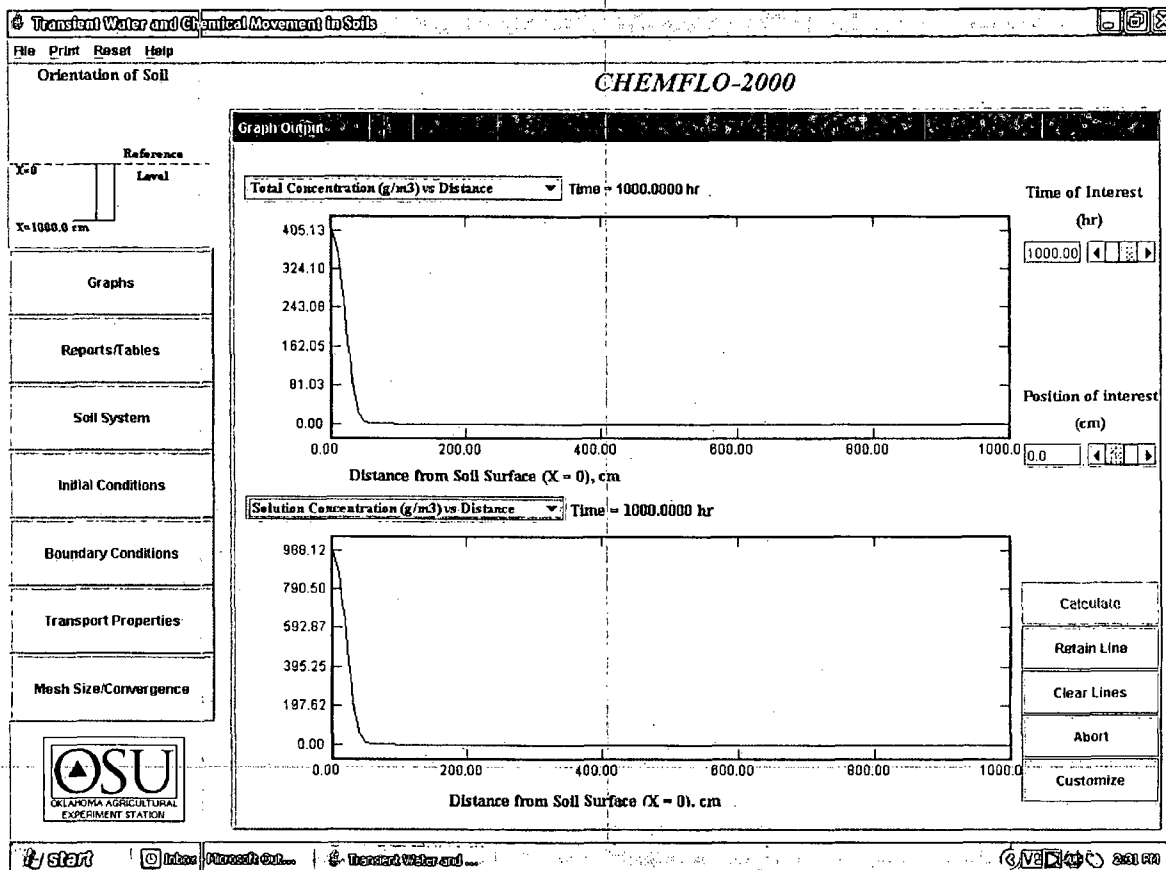


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil: Sandy Clay Loam

☒ Finite Length Soil

Soil Length (cm): 500.0

☐ Semi-infinite Soil

Angle of Inclination, (degrees):

90

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m3)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		n = 1.48	α (1/cm) = 0.059		
			n = 1.48		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water (cm ² /hr)	0.03528
Dispersivity (cm)	0.12
Uniform Partition Coefficient (m ³ /Mg soil)	0.095
Uniform 1st-Order Degradation Const. in Liquid (1/hr)	0.47
Uniform 1st-Order Degradation Const. on Solids (1/hr)	0.0004
Uniform Zero-Order Production Constant (g/m ³ /hr)	0.0

Figure A.3: Assumed chemical transport properties



COVER LETTER

Friday, June 13, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank-116-Spill Site

Order No.: 0806136

Dear Gaurav Rajen:


Hall Environmental Analysis Laboratory, Inc. received 5 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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site
Lab Order: 0806136

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-01**Collection Date:** 6/9/2008 9:00:00 AM**Client Sample ID:** T-116-060908-01-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:26 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:26 PM

Lab ID: 0806136-02**Collection Date:** 6/9/2008 9:05:00 AM**Client Sample ID:** T-116-060908-02-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Lab ID: 0806136-03**Collection Date:** 6/9/2008 9:10:00 AM**Client Sample ID:** T-116-060908-03-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Lab ID: 0806136-04**Collection Date:** 6/9/2008 9:15:00 AM**Client Sample ID:** T-116-060908-04-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-05**Collection Date:** 6/9/2008 9:20:00 AM**Client Sample ID:** T-116-060908-05-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 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, Gallup
 Project: Tank-116-Spill Site

Work Order: 0806136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16175		MBLK							
					Batch ID: 16175	Analysis Date: 6/12/2008 5:32:13 PM			
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16175		LCS							
					Batch ID: 16175	Analysis Date: 6/12/2008 6:06:34 PM			
Diesel Range Organics (DRO)	38.04	mg/Kg	10	76.1	64.6	116			
Sample ID: LCSD-16175		LCSD							
					Batch ID: 16175	Analysis Date: 6/12/2008 6:41:01 PM			
Diesel Range Organics (DRO)	35.48	mg/Kg	10	71.0	64.6	116	6.98	17.4	

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 GALLU

Date Received:

6/10/2008

Work Order Number 0806136

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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?	1°	<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, June 25, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank 116 Spill Site

Order No.: 0806295

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 6/19/2008 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", is written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

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



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank 116 Spill Site
Lab Order: 0806295

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0806295-01A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-01

Client Sample ID: T-116-061708-01SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3100	200		mg/Kg	20	6/21/2008 10:51:57 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 10:51:57 AM
Surr: DNOP	0	61.7-135	S	%REC	20	6/21/2008 10:51:57 AM
EPA METHOD 8016B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: BFB	90.5	84-138		%REC	20	6/25/2008 4:21:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: 4-Bromofluorobenzene	87.7	81.4-117		%REC	20	6/25/2008 4:21:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-02

Client Sample ID: T-116-061708-02SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4100	100		mg/Kg	10	6/21/2008 11:26:21 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	6/21/2008 11:26:21 AM
Surr: DNOP	88.8	61.7-135		%REC	10	6/21/2008 11:26:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: BFB	93.5	84-138		%REC	20	6/25/2008 4:51:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: 4-Bromofluorobenzene	91.1	81.4-117		%REC	20	6/25/2008 4:51:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-03

Client Sample ID: T-116-061708-03SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4700	200		mg/Kg	20	6/21/2008 12:00:45 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 12:00:45 PM
Surr: DNOP	120	61.7-135		%REC	20	6/21/2008 12:00:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: BFB	92.4	84-138		%REC	20	6/25/2008 5:21:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: 4-Bromofluorobenzene	89.0	81.4-117		%REC	20	6/25/2008 5:21:35 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-04

Client Sample ID: T-116-061708-04SS
Collection Date: 6/17/2008 4:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5200	200		mg/Kg	20	6/21/2008 1:09:31 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 1:09:31 PM
Surr: DNOP	98.8	61.7-135		%REC	20	6/21/2008 1:09:31 PM
EPA METHOD 8016B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: BFB	102	84-138		%REC	20	6/25/2008 5:51:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: 4-Bromofluorobenzene	101	81.4-117		%REC	20	6/25/2008 5:51:32 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, Gallup

Project: Tank 116 Spill Site

Work Order: 0806295

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16266		MBLK			Batch ID: 16266	Analysis Date: 6/20/2008 1:24:03 AM			
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16266		LCS			Batch ID: 16266	Analysis Date: 6/20/2008 1:58:25 AM			
Diesel Range Organics (DRO)	33.93	mg/Kg	10	67.9	64.6	116			
Sample ID: LCSD-16266		LCSD			Batch ID: 16266	Analysis Date: 6/20/2008 2:32:46 AM			
Diesel Range Organics (DRO)	33.99	mg/Kg	10	68.0	64.6	116	0.177	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-16271		MBLK			Batch ID: 16271	Analysis Date: 6/25/2008 2:48:53 AM			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-16271		LCS			Batch ID: 16271	Analysis Date: 6/25/2008 1:18:42 AM			
Gasoline Range Organics (GRO)	24.56	mg/Kg	5.0	87.4	69.5	120			
Sample ID: LCSD-16271		LCSD			Batch ID: 16271	Analysis Date: 6/25/2008 1:48:48 AM			
Gasoline Range Organics (GRO)	25.01	mg/Kg	5.0	89.2	69.5	120	1.82	11.6	
Method: EPA Method 8021B: Volatiles									
Sample ID: MB-16271		MBLK			Batch ID: 16271	Analysis Date: 6/25/2008 2:48:53 AM			
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-16271		LCS			Batch ID: 16271	Analysis Date: 6/25/2008 1:18:42 AM			
Benzene	0.2926	mg/Kg	0.050	105	78.8	132			
Toluene	2.030	mg/Kg	0.050	101	78.9	112			
Ethylbenzene	0.4135	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	2.465	mg/Kg	0.10	107	73	128			
Sample ID: LCSD-16271		LCSD			Batch ID: 16271	Analysis Date: 6/25/2008 1:48:48 AM			
Benzene	0.2963	mg/Kg	0.050	108	78.8	132	1.19	27	
Toluene	2.037	mg/Kg	0.050	101	78.9	112	0.354	19	
Ethylbenzene	0.4119	mg/Kg	0.050	103	69.3	125	0.368	10	
Xylenes, Total	2.470	mg/Kg	0.10	107	73	128	0.190	13	

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 GALLU

Date Received:

6/19/2008

Work Order Number 0806295

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" 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?

16°

<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: GALLUP

Phone #: 505722 0227

email or Fax#:

QA/QC Package:

☒ Standard

☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

TANK 116 SPILL SITE

Project #:

061708

Project Manager:

GAURAU RASEN

Sampler:

On 6/17/08
Sample Temperature 33°C

HEAL No.

0806295

Container Type and #

Preservative Type

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
6/17	1:30	T-116-061708-01SS	bag x2	NONE	-1
6/17	1:30	T-116-061708-02SS	bag x2	NONE	-2
6/17	1:30	T-116-061708-03SS	bag x2	NONE	-3
6/17	4:30	T-116-061708-04SS	bag x2	NONE	-4

Date: 6/18

Time: 9:30 AM

Date:

Time:

Relinquished by: Gaurau R

Received by:

Gaurau R

Received by:

Remarks:

061708
0900



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 + TMBs (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 ³⁻ , SO ₄ ²⁻)	
8081 Pesticides / 8082 PCBs	
8260B (VOA)	
8270 (Semi-VOA)	
BTEX	X
TPH	X
Air Bubbles (Y or N)	



COVER LETTER

Friday, July 31, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0227

FAX (505) 722-0210

RE: T116

Order No.: 0907508

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/28/2009 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,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over the printed name.

Andy Freeman, Business Manager

Nancy McDuffie, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109

505.345.3975 ■ Fax 505.345.4107

www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

Date: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116**Lab Order:** 0907508**Lab ID:** 0907508-01
Client Sample ID: T1160716090155**Collection Date:** 7/16/2009 2:00:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02
Client Sample ID: T1160716090255**Collection Date:** 7/16/2009 2:15:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03
Client Sample ID: T1160716090355**Collection Date:** 7/16/2009 2:25:00 PM**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: T116

Work Order: 0907508

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-19724		MBLK							
			Batch ID: 19724		Analysis Date:				7/29/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19724		LCS							
			Batch ID: 19724		Analysis Date:				7/29/2009
Diesel Range Organics (DRO)	35.49	mg/Kg	10	71.0	64.6	116			
Sample ID: LCSD-19724		LCSD							
			Batch ID: 19724		Analysis Date:				7/29/2009
Diesel Range Organics (DRO)	41.25	mg/Kg	10	82.5	64.6	116	15.0	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-19740		MBLK							
			Batch ID: 19740		Analysis Date:				7/30/2009 8:17:32 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-19740		LCS							
			Batch ID: 19740		Analysis Date:				7/30/2009 7:18:37 PM
Gasoline Range Organics (GRO)	30.59	mg/Kg	5.0	112	64.4	133			
Sample ID: LCSD-19740		LCSD							
			Batch ID: 19740		Analysis Date:				7/30/2009 7:47:11 PM
Gasoline Range Organics (GRO)	30.13	mg/Kg	5.0	110	69.5	120	1.52	11.6	

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 GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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"/>		Number of preserved bottles checked for pH:
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"/>	<2 >12 unless noted below.

Container/Temp Blank temperature?

8.6°"

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

RECEIVED
2009 AUG 23 AM 10 50

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* ☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <i>Mark B. Turri</i>	OIL CONSERVATION DIVISION		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:	
E-mail Address: mark.turri@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>	
Date: 8-20-2009	Phone: 505-722-3833		

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

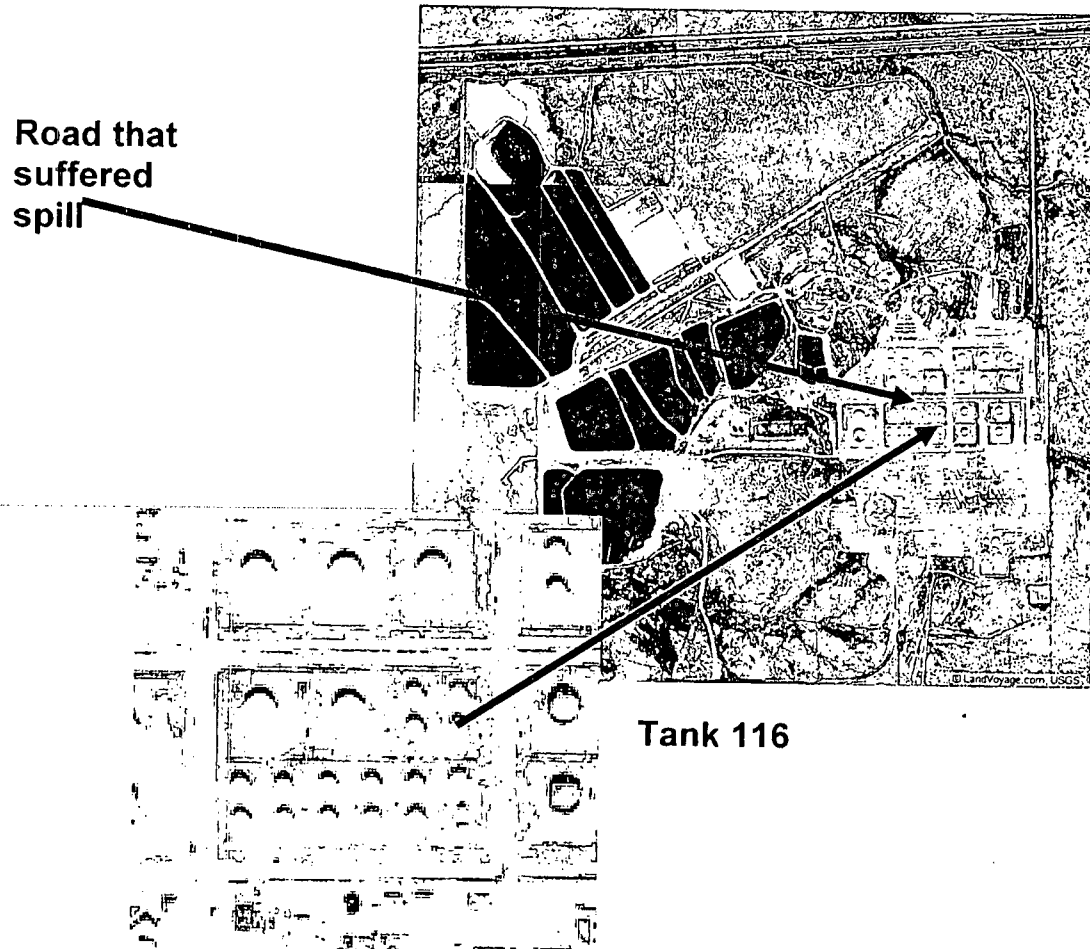
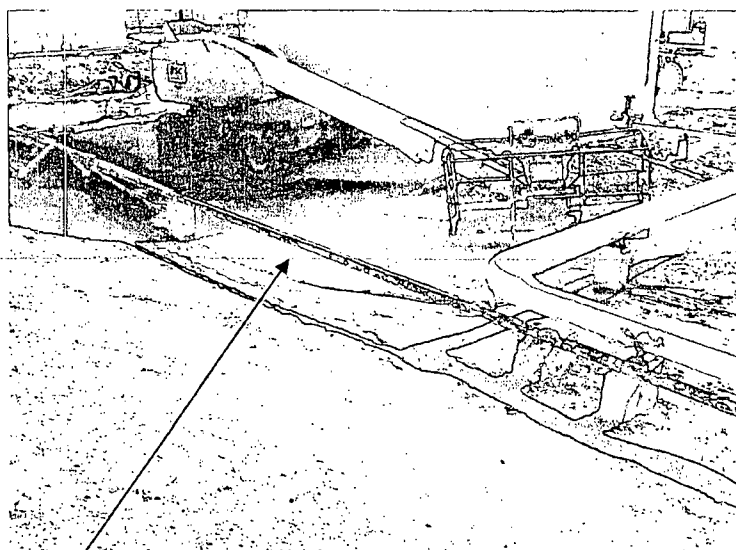


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

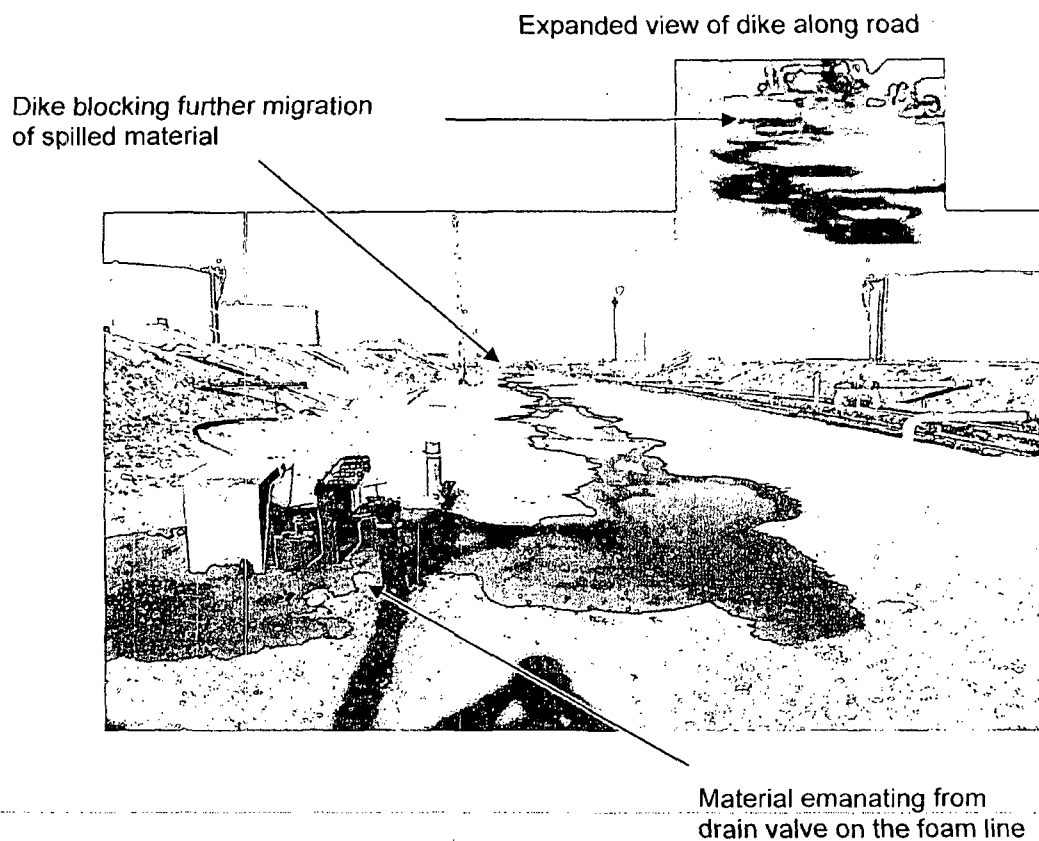


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.

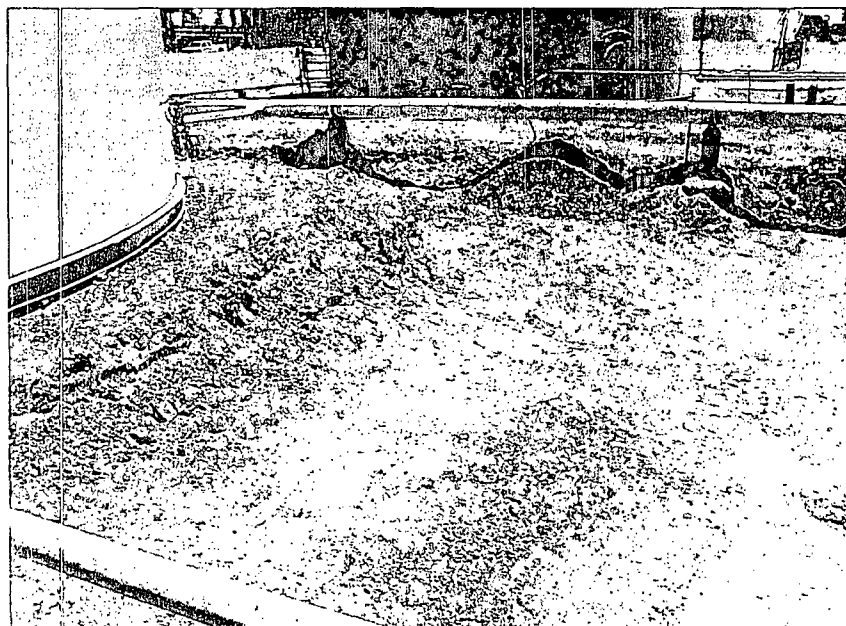


Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.

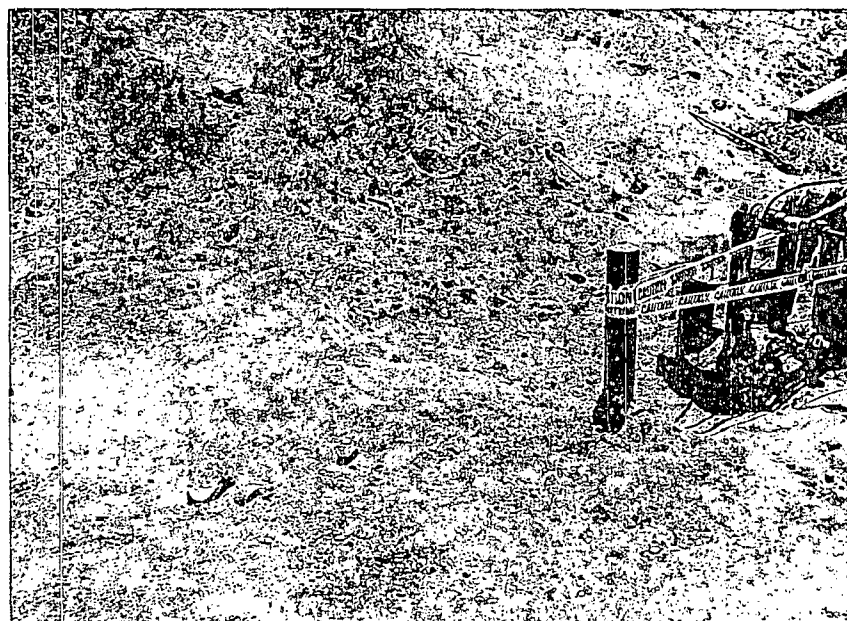


Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank

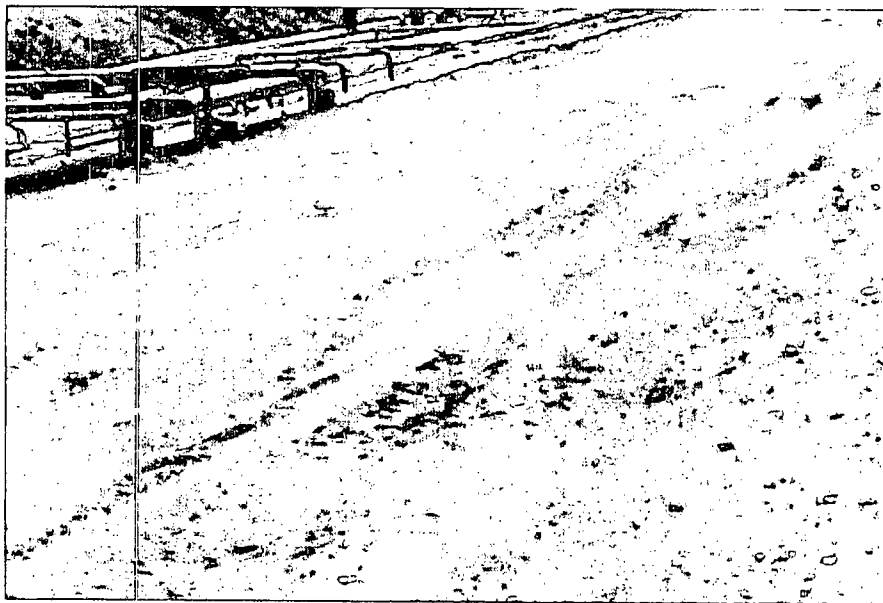


Figure 6: Preliminary clean-up of road which had experienced run-off of product.

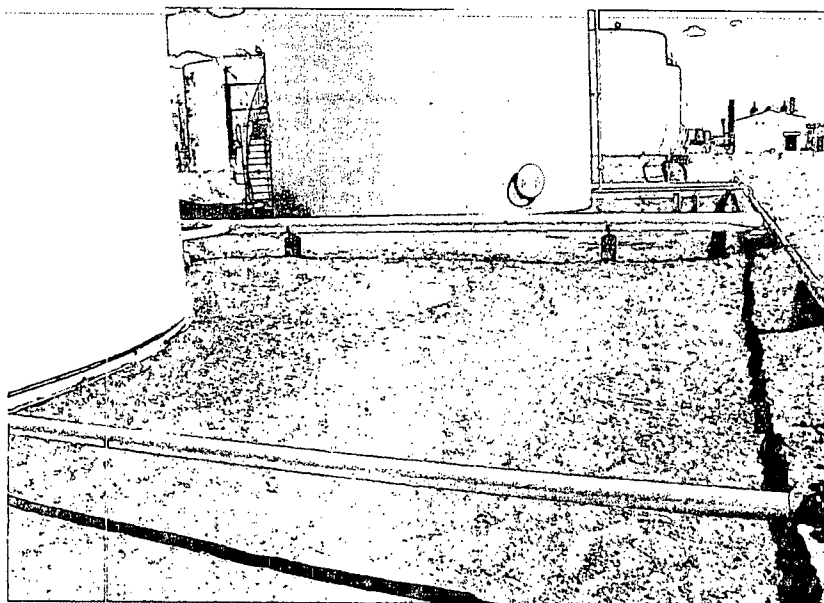


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

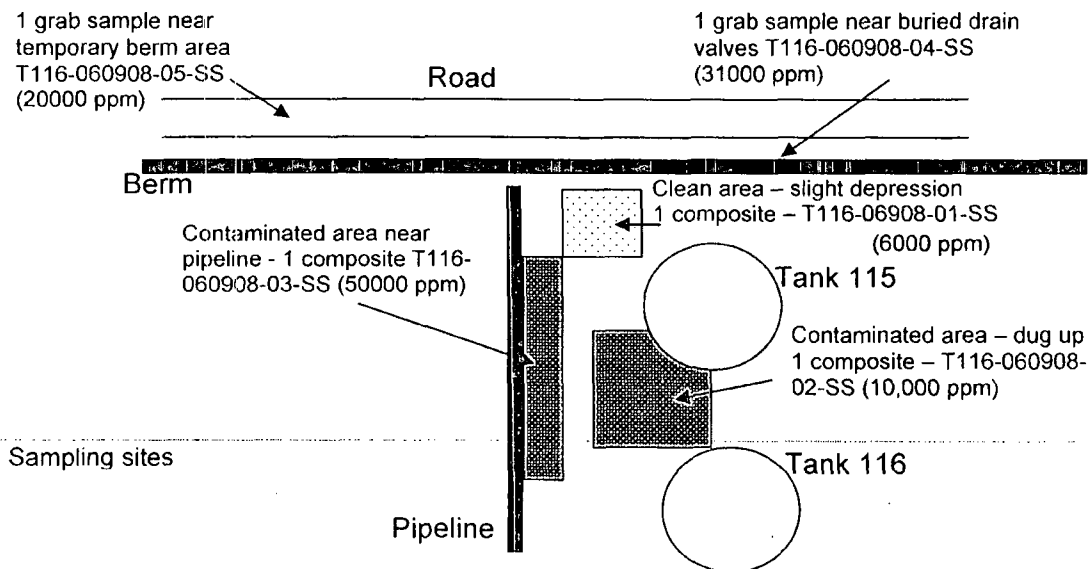


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

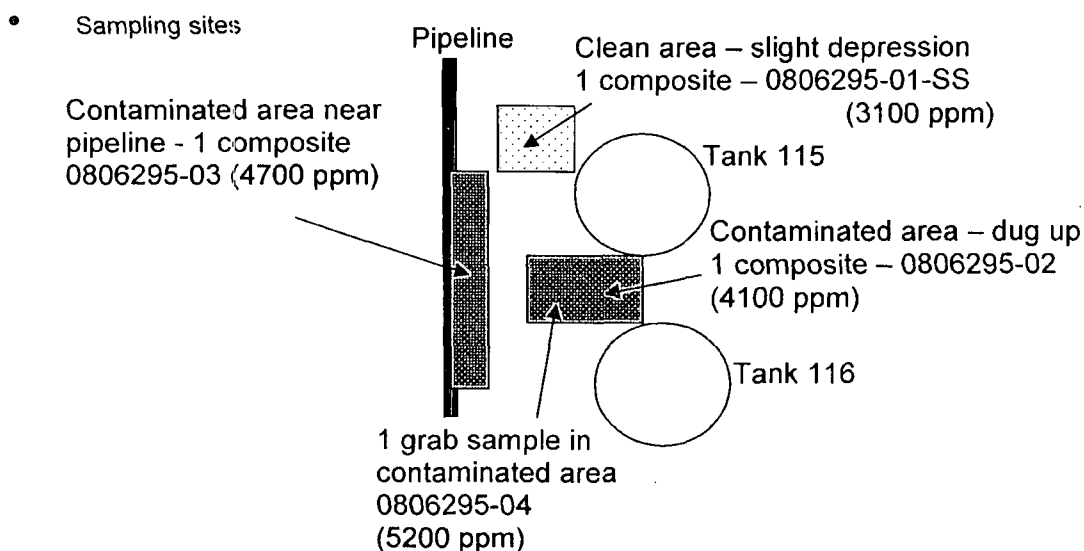


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

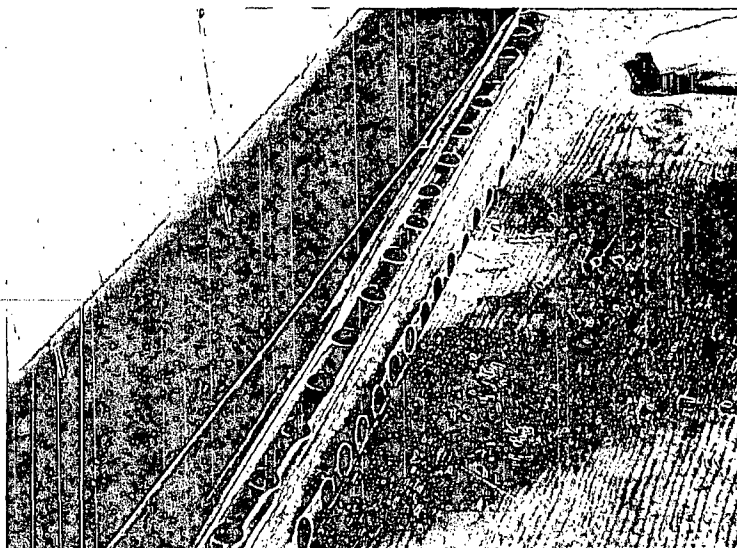


Figure 10: Perforated pipe that has been constructed

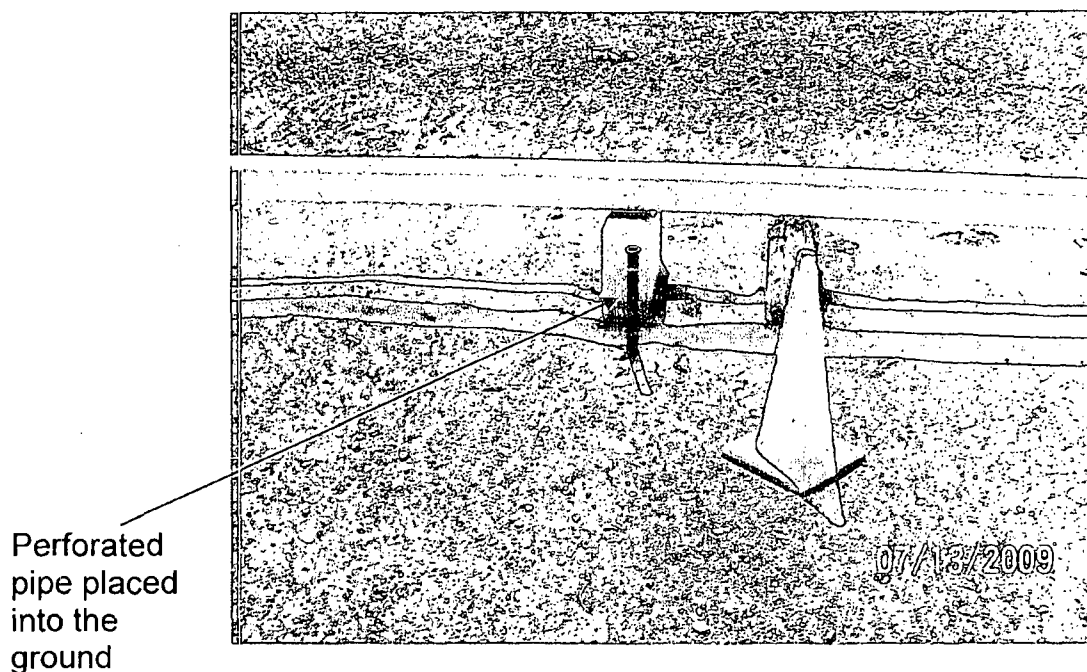


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

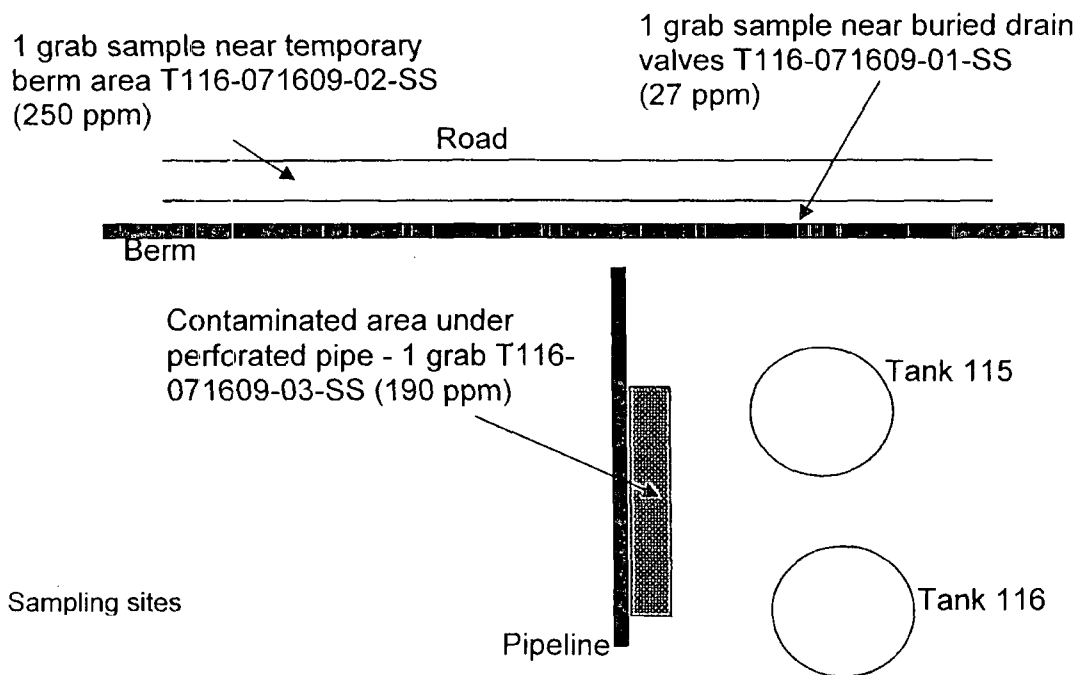


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

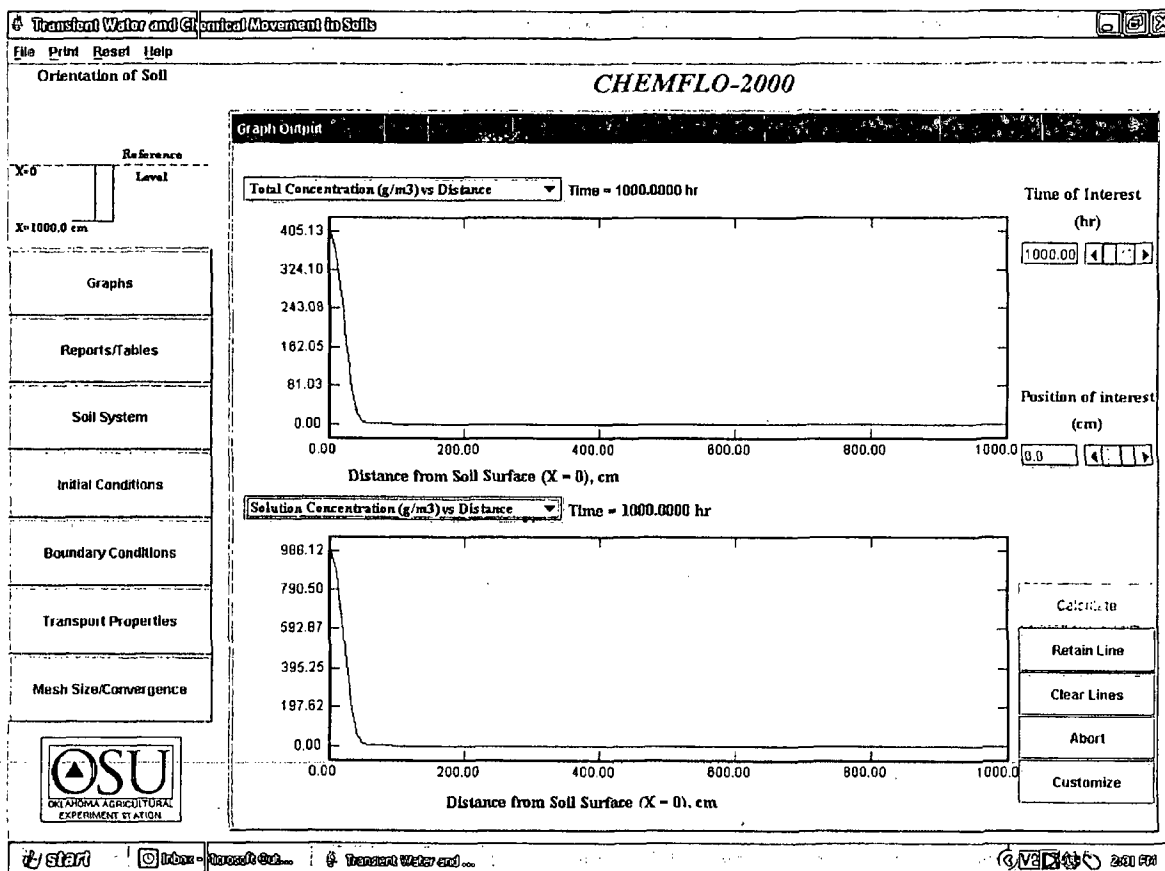


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil: Sandy Clay Loam

☒ Finite Length Soil
 Soil Length (cm): 500.0

☐ Semi-infinite Soil

Angle of Inclination, (degrees): 90

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m ³)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		n = 1.48	α (1/cm) = 0.059		
			n = 1.48		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water (cm²/hr) 0.03528

Dispersivity (cm) 0.12

Uniform Partition Coefficient (m³/Mg soil) 0.095

Uniform 1st-Order Degradation Const. in Liquid (1/hr) 0.47

Uniform 1st-Order Degradation Const. on Solids (1/hr) 0.0004

Uniform Zero-Order Production Constant (g/m³/hr) 0.0

Figure A.3: Assumed chemical transport properties

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site

Lab Order: 0806136

Lab ID: 0806136-01 Collection Date: 6/9/2008 9:00:00 AM
Client Sample ID: T-116-060908-01-SS Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC						
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:28 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:28 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:28 PM

Lab ID: 0806136-02 Collection Date: 6/9/2008 9:05:00 AM
Client Sample ID: T-116-060908-02-SS Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC						
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Lab ID: 0806136-03 Collection Date: 6/9/2008 9:10:00 AM
Client Sample ID: T-116-060908-03-SS Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC						
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Lab ID: 0806136-04 Collection Date: 6/9/2008 9:15:00 AM
Client Sample ID: T-116-060908-04-SS Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC						
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 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

2

Page 1 of 2

Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 PM

Chain-of-Custody Record

Client: WESTERN REFINING

Address: GALLUP

Phone #: 505 722 0927

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4: (Full Validation)

☐ Other

☐ EDD (Type)

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

TANK 116 SPILL SITE

Project #:

061708

Project Manager:

GAURAU RASEN

Sampler:

Sample 1

Date Time Sample Request ID

6/17 1:30 T-116-061708-01SS
6/17 1:30 T-116-061708-02SS
6/17 1:30 T-116-061708-03SS
6/17 4:30 T-116-061708-04SS

Container Type and #

8oz x 2
8oz x 2
8oz x 2
8oz x 2

Preservative Type

NONE
NONE
NONE
NONE

HEAL No.

0806295
-1
-2
-3
-4

Analysis Request

BTEX + MTBE + TMBs (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, NO₃, NO₂, PO₄, SO₄)
8081 Pesticides / 8082 PCBs
8260B (VOA)
8270 (Semi-VOA)
BTEX
TPH
Air Bubbles (Y or N)

Received by: June 19/08 Remarks:

Received by: June 19/08

Relinquished by: Gaurau R

Date: 6/18 Time: 9:30AM

Date: Relinquished by:

Time: Relinquished by:

Hall Environmental Analysis Laboratory, Inc.

Date: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116

Lab Order: 0907508

Lab ID: 0907508-01
Client Sample ID: T1160716090155

Collection Date: 7/16/2009 2:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02
Client Sample ID: T1160716090255

Collection Date: 7/16/2009 2:15:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03
Client Sample ID: T1160716090355

Collection Date: 7/16/2009 2:25:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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"/>	Number of preserved bottles checked for pH:
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"/>	<2 >12 unless noted below.

Container/Temp Blank temperature?

8.6°"

<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

Address: REFINING

GALLUP

Phone #: 505 722 3833

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type) _____

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

T116

Project #:

071609

Project Manager:

G. RAZEN

Sampler:

071609

071609

071609

071609

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071609

071609

071609

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071609

071609

071609

071609

071609

Container Type and #

Preservative Type

HEAL No.

1802

NONE

0907508

-1

1x 802

NONE

-2

1x 802

NONE

-3

1x 802

NONE

-3

1x 802

NONE

-3

1x 802

NONE

-3

1x 802

NONE

-3

1x 802

NONE

-3

1x 802

NONE

-3

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH Method 8015B (Gas/Diesel)

BTEX + MTBE + TPH (Gas only)

BTEX + MTBE + TMB's (8021)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8260)

8310 (PNA or PAH)

Anions (F, Cl, NO₃, NO₂, PO₄, SO₄)

8081 Pesticides / 8082 PCB's

8260B (VOA)

8270 (Semi-VOA)

TPH (Method 418.1)

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, August 13, 2010 3:46 PM
To: Van Horn, Kristen, NMENV; Van Horn, Kristen, NMENV
Cc: Chavez, Carl J, EMNRD
Subject: API OVERFLOW 073010
Attachments: C-141 INITIAL 073010.pdf

Dear Kristen and Hope,

The following is a submittal of the initial C-141 for the API overflow that occurred on July 30, 2010 in accordance with state regulations. A formal report will be forth coming.

Thanks,

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen
Address I-40 / Exit 39	Telephone No.(505) 722-0258
Facility Name Western Refining (Gallup)	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Oily Water Mixture	Volume of Release 230 bbls	Volume Recovered 205 bbls
Source of Release API	Date and Hour of Occurrence 7/30/2010; 1745	Date and Hour of Discovery 7/30/2010; 1800
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (HWB) Christiansen/Van Horn/Monzeglio; OCD (Powell)	
By Whom? Beck Larsen	Date and Hour 7/31 (1315,1320,1324,1327 hrs); 8/2 (0745 hrs)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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

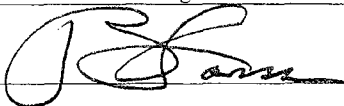
Describe Cause of Problem and Remedial Action Taken.*

Due to a heavy rain event the API began overflow at 1745 hrs and ended at 1905 hrs. Vacuum Truck began vacuuming up the contaminated area. The API was operating properly at the time of the incident. The maximum API design flow rating is 500 gpm. If a rain event exceeds the design flow rating, any excess will be sent to the baker tanks. The baker tank system is designed to accommodate excessive rain events by allowing any API overflow volumes to be discharged into the five baker tanks. However, the influx of stormwater to the API exceeded the effluent from API. By the end of the event, the baker tank volume filled to 50-60 percent of total capacity.

Describe Area Affected and Cleanup Action Taken.*

Around the API and within the containments of all five baker tanks. The vacuum truck is removing the oily water contamination within the berm and all baker tanks. This oily water mixture will be sent back to the API via a process sewer for oil/water separation. All aqueous liquids were removed by August 1, 2010.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8/13/2010	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Monday, August 02, 2010 8:07 AM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD
Subject: FW: API Overflow NOTIFICATION

Brandon and Carl,
Here are the details on API Overflow this weekend.
Thanks,

From: Larsen, Thurman
Sent: Saturday, July 31, 2010 1:49 PM
To: Van Horn, Kristen, NMENV; 'Monzeglio, Hope, NMENV'
Subject: API Overflow NOTIFICATION

Dear Ms Van Horn and Ms Monzeglio,
This e-mail is to act as a notification of an API overflow incident that occurred yesterday, Friday, July 30.

At about 1745 hrs (545 PM) the API began to overflow due to a heavy rain. It continued to overflow until 1905 hrs (705PM). Crews were immediately dispatched to begin cleanup efforts as soon as the API stopped overflowing. It is estimated to be 5 bbls but the exact quantity is still under investigation.

Notifications: Verbal Notifications were given to the following:

E-form Notification: submitted at 1315 hrs, Saturday, July 31
Verbal (Msg); Brandon Christenson at 1320 hrs, Saturday, July 31, 2010
Verbal (Msg): Kristen Van Horn at 1324 hrs, Saturday, July 31, 2010
Verval (Msg): Hope Monzelglio at 1327 hrs, Saturday, July 31, 2010
Follow-up e-mail submitted to Kristen Van Horn and Hope Monzeglio at 1345 hrs, Saturday, July 31

If you need to contact me or require additional information, please feel free to contact me at (505) 722-0258
A C-141 will follow.

Sincerely,
Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery).

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Tuesday, April 27, 2010 11:47 AM
To: Monzeglio, Hope, NMENV
Cc: Chavez, Carl J, EMNRD; Van Horn, Kristen, NMENV; Powell, Brandon, EMNRD
Subject: Sour Naphtha Line Leak
Attachments: SOUR NAPHTHA CHARGE LINE-C141 Initial.pdf

Dear All,

The following is the Initial C-141 for the Sour Naphtha Line Leak that occurred on Saturday, April 24, 2010. Please feel free to contact me if you have any questions. I may be contacted at (505) 722-0258 or via my cell at (505) 862-1749.

Sincerely,

Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery)

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining	Contact Beck Larsen
Address I-40 / Exit 39	Telephone No. (505) 722-0258
Facility Name Western Refining (Gallup)	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release Sour Naphtha Product Line	Volume of Release <18 bbls (740 gallons)	Volume Recovered <18 bbls (740 gallons)
Source of Release	Date and Hour of Occurrence 4/24/2010 / 1100 hrs	Date and Hour of Discovery 4/24/2010 / 1100 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMED (Steve Conley (msg) / Hope Monziglio) / OCD (Brandon Powel)	
By Whom? Beck Larsen	Date and Hour 4/26/2010 / 0830-0840	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

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

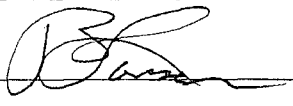
Describe Cause of Problem and Remedial Action Taken.*

At approximately 1100 hrs on 4/24/2010, sour naphtha was discovered coming out of a pipe sleeve (NHT Charge Line) across and underneath the road from the cooling towers and leaking underground. This line area is part of the process area going underneath the road leading to the tank farm area. Operations and Off-site personnel took immediate action in order to identify the product and to stop any flow or leak. It was determined that the flow going to the NHT Unit was previously blocked in, therefore, only liquid that was in the line was escaping under the concrete slab/roadway. Hydrogen Sulfide (H2S) levels in this area indicated "non-detect" as monitored using an LEL meter. Once the leak was stopped from sour naphtha (NHT Charge) line, the concrete road area was excavated. Once the concrete was removed, a vacuum truck removed 740 gallons of sour naphtha from this excavated area. Maintenance personnel are in the process of replacing the line.

Describe Area Affected and Cleanup Action Taken.* Contaminated soil (estimated 5 to 10 cu yards) was excavated for disposal. Sour naphtha product (740 gallons) was removed from excavated area using an on-site vacuum truck.

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

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Beck Larsen			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 4/26/2010	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, April 16, 2010 1:14 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
Cc: Riege, Ed
Subject: Response Letter- "Notice of Disapproval", "Cleanup Status for API Separator Overflows" (September 5 and December 8, 2009)
Attachments: NMED RESPONSE LETTER-041610.pdf

Dear Ms Monzeglio and Mr. Chavez;

Western Refining (Gallup) is submitting a Response Letter to address the NMED "Notice of Disapproval", "Cleanup Status for the API Overflows" that occurred on September 5 and December 8, 2009 that is due on April 16, 2010. In addition, this attachment includes the Interim Measures Plan that is due on April 19, 2010. The hard copies will be sent on today via Certified Mail (# 7008 2810 0000 4726 1727). If you should have any additional questions or concerns in this matter, please feel free to contact me at (505) 722-0258.

Sincerely,
Beck Larsen
Environmental Engineer
Western Refining (Gallup Refinery)



WNR
LISTED
NYSE

GALLUP

CERTIFIED MAIL: 7008 2810 0000 4726 1727

April 16, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: James P. Bearzi

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

**Reference: RESPONSE LETTER- "NOTICE OF DISAPPROVAL",
"CLEANUP STATUS FOR API SEPARATOR OVERFLOWS"
(SEPTEMBER 5, 2009 and DECEMBER 8, 2009)
WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY
EPA ID NO. NMD000333211
HWB-GRCC-MISC**

Dear Mr. Bearzi and Mr. Chavez;

Please accept the following letter in response to a letter from Mr. James Bearzi of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (March 4, 2010) that references API overflows that occurred on September 5, 2009 and December 8, 2009.

The following shall address the comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

I. COMMENT 1-"Permittee must describe in detail the sampling collection methods and procedures that were used to collect the confirmation samples (eg., how were the samples collected, were they discrete or composite samples, how were any composite samples collected, what equipment was used (shovel, encore sampler) to collect the samples). The Permittee must also describe the decontamination process of the sampling equipment (eg., equipment was cleaned in a non-phosphate solution followed by a rinse using de-ionized water."

RESPONSE:

- a. Sample Collection- Six inches of soil was removed at each of the fourteen (14) sample locations using a stainless steel (6") garden spade. Fourteen (14) discrete samples were

- collected in individual 8 oz glass jars at the indicated sample collection point locations as indicated on the initial Sampling Plan. (Figure 1)
- b. Sampling Equipment-A clean stainless steel (6 inch) garden spade was used to collect each sample. The sampler used clean latex gloves in order to minimize any cross contamination that may occur during the sampling event. After collecting an individual sample and before collecting the next sample, the latex gloves were replaced with a new pair of latex gloves.
 - c. Decontamination Process or Procedures- The spade was decontaminated before and after each sample collection using an Alconox solution or Simple Green cleaner followed by a de-ionized water rinse.

II. COMMENT 2-“Permittee states “Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories.” The Permittee must provide a schedule for when the additional sampling and clean up activities will be conducted and be completed.

RESPONSE: This project will be separated into two phases in order to assure the agency that an overflow condition will not occur.

Phase 1 is the installation of four (4) additional Baker Tanks as described in the Interim Measures Work Plan. The importance of this as the first step is to be able to handle any API overflows in order to assure that this will not occur. Tank installation has to be the first step because any API overflow will cause additional contamination in this same area that we are trying to remediate. Dirt Work has to be done to insure a solid foundation for the baker tanks. The dirt work and frac tank installation will be on a non-contaminated area north of the existing baker tank. Next, piping has to be fabricated. The four (4) frac tanks have to be delivered and placed at this location. Piping will then have to be connected to each frac tank. This phase should take up to two and one-half weeks to complete. (Refer to Attachment)

Phase 2 is the clean up activities around the API and other contaminated areas. All contaminated material including around the API is to be remediated. This soil will be put in roll-off boxes to be shipped off-site as Hazardous Waste. The clean up activities will take about two to two and one-half weeks to complete. Next, sampling will be conducted for the same sample locations as described in a previous location plot of December 8 Sampling Plan. It will take up to four weeks to receive analysis from Hall Environmental Laboratory with a normal turn-around. (Figure 1)

III. COMMENT 3-The Permittee must address the following regarding the “Confirmation Samples” figure that identifies the areas requiring additional excavation and confirmation sampling.

- a. The figure shows two hatched areas: the blue hatch identifies the “Area of Possible Contamination” and the red hatch identifies that the “Area is Contaminated.” The report indicates that the red hatch area is where additional excavation and confirmation sampling will occur. The Permittee must explain the difference between the red and blue hatch areas, and specifically why the “Area of Possible Contamination” does not require additional sampling.”

RESPONSE: The “Red” hatch (Area is Contaminated) and the BLUE hatch (area of Possible Contamination) was based on the Total Petroleum Hydrocarbon (TPH) values greater than 200 mg/kg as determined from 2006 (2009) Soil Screening Levels (SSL). Areas that were greater than 200 mg/kg were considered to be a “HOT ZONE”, i.e., shaded in “RED” hatch or “Area is Contaminated”. Areas that were less than 200 mg/kg was considered to be “BLUE” hatch or “Area of Possible Contamination”. Clean up efforts will be made for both “RED” and “BLUE” hatch areas. These areas do not determine if excavation is required, only which areas are more contaminated than others.

- b. **The area west of the Baker Tank is hatched, red indicating that additional excavation and confirmation sampling will occur; however, there are two small areas within the red hatch that are blue (west edge of the excavation and the southwest corner edge of the excavation), an area which indicates no further sampling will be conducted. It is not clear how the Permittee determined that these “blue” areas do not need additional excavation and sampling. Additionally, it is unclear how the Permittee determined the areas north and south of the sample location API-W-6 do not need additional excavation. The Permittee must explain how the borders between the “Area of Possible Contamination” and the “Area is Contaminated” were determined.**

RESPONSE: The two small areas of concern are due to a drawing error. These two areas are all considered as contaminated, should have been identified as a red hatch area, and will also be excavated. Excavation and sampling of the areas north and south of the sample location API-W-6 will also be performed. A detailed description of the red and blue hatch areas was previously identified under comment (3 a) above.

- c. **Additional sampling is necessary to define the horizontal and vertical extent of contamination in areas where contaminants are still present. The Permittee must revise the Confirmation Sampling figure to address items a and b and propose additional sampling. The Permittee must be able to demonstrate that clean up of contamination surrounding the API separator and Baker Tank has been completed.**

RESPONSE: The facility is in process of addressing the API overflow issue which is the cause of the contamination. An “Interim Measures Work Plan” is being submitted along with this report. This plan addresses the API overflow issues in more detail. Additional excavation and sampling will be conducted around the API and Baker Tanks both under the “BLUE” and “RED” hatch areas. (Figure 2)

IV. COMMENT 4- In NMED’s September 15, 2009 letter regarding the Formal Report submittal to the September 5, 2009 API Separator Overflow, NMED directed the Permittee to provide steps that would be implemented to ensure overflow to the API separator do not continue to occur. On page 5 of the Report, the Permittee states “both of the API overflows were the direct result of inclement weather conditions that were beyond the control of the refinery. Gallup is in the design phase of a new “Stormwater Diversion Project” in order to eliminate overflows from the new API due to unexpected or inundated

stormwater discharges. This project will be composed of two (2) Stormwater diversion Tanks (T-27 and T-28) and additional diversionary tank. The new system will connect directly into the current stormwater system. A new twenty-four inch (24" pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API."

The overflows were a direct result of the weather, which cannot be controlled by the Permittee; however, the Permittee can control how the overflows are handled so that the wastewater will not flow to the ground surface. The Stormwater diversion Project is no yet installed. Until it is, the API separator must prevent releases from the API separator to the ground surface. The Permittee must propose an interim measures in accordance with Section IV.B.6 (Interim Measure (IM)) of the Post-Closure Care Permit that will control and prevent all overflow from the API separator to the ground surface until the Stormwater diversion Project is installed and operational. The Interim Measures Work Plan is due to NMED on or before April 19, 2010.

RESPONSE: An "Interim Measures Work Plan for control and prevention of Overflow from the API Separator" has been prepared. The plan discusses the amendments to the API area through the use of four (4) additional frac tanks in conjunction with an existing frac tank. The Interim Measures Work Plan is being submitted in conjunction with this report. (Attachment)

V. COMMENT 5- The following comments address the "Hall Environmental Laboratory Data Summary" Table.

- a. **NMED updated their Soil Screening Levels (NMED SSLs), (December 2009). The updated NMED SSLs must be applied to all future comparisons. The change in the December 2009 version of the NMED SSLs do not affect the information provided in this table with the exception of xylenes, for which the reported detection is below the NM SSL industrial value of 3,610 mg/kg. No revision to the Table is necessary.**

RESPONSE: Changes have been adopted to use the December 2009 NMED Soil Screening Levels (SSL) for future comparisons. The 2006 SSL for Xylene was 82 mg/kg. The December 2009 SSL of 3610 mg/kg has been adopted. The table has been modified to reflect these changes. (Figure 3)

- b. **In the Table, the Permittee presents the chromium III value of 100,000 mg/kg. In the future, the Permittee must apply the chromium VI values unless chromium has been speciated or the Permittee can otherwise demonstrate the chromium present in the sample is chromium III. No revision is necessary as the chromium detections are below the industrial chromium VI value.**

RESPONSE: According to the table, the 2006 SSL value for Cr(+3) is 100,000 mg/kg. This is the Soil Screening Level (SSL) not the Cr(+3) value. This value has been changed in accordance with the December 2009 SSL value of 1,570,000 mg/kg. The

maximum Cr(+3) value of 73 mg/kg is below either SSL versions (2006 or 2009). (Figure 3)

The 2006 SSL value for Cr(+6) is 3400 mg/kg. The 2009 SSL value for Cr(+6) is 2900 mg/kg. This value will be used in future comparisons. A maximum Cr(+3) value is well below either 2006 or the 2009 SSL values. (Figure 3)

- c. **The benzene standard in the table states “258 mg/kg”. The standard in the NMED SSLs June 2006 is 25.8 mg/kg. No revisions to the Table are necessary since the benzene detection are below the NMED SSLs December 2009 industrial standard of 85.4 mg/kg.**

RESPONSE: A decimal error was made in the original submittal reporting a SSL (2006 version) of 258 mg/kg for Benzene. This value should have been designated as 25.8 mg/kg as a SSL. This value has been changed to reflect a new SSL of 85.4 mg/kg. The new 2009 SSL will be applied in future comparisons. No revision to table is required. (Figure 3)

- d. **The “DRO” row under the brown shaded column titled “Cleanup Status” states “ok”, indicating no additional cleanup is necessary. However, listed detection exceed the cleanup standard and additional cleanup activities are required. No revision is necessary as the locations that have detections above the cleanup standard are designated as requiring additional cleanup in the Report. The Permittee must ensure the text, tables, and figures are consistent with one another. No revisions are necessary.**

RESPONSE: The SSL detection for TPH for both 2006 and 2009 is 200 mg/kg. According to the NMED tables, there are no SSL values for DRO, MRO, and GRO. However, the comparison will reflect a DRO, MRO, and GRO change based on the TPH values in the future. (Figure 3)

- e. **According to the laboratory reports, gasoline range organics (GRO) were not detected at the following sample locations: API-N-1, API-E-2, API-S-4, API-W-5, API-W-6, CHN-C-10, CHN-C-11, NBT-W-12, and NBT-E-14; however, the Table includes detections for these locations. The detections provided in the Table are the PQL values found in the laboratory reports. Since there were no detections, no revision is necessary. In the future, the Permittee must ensure the tables are consistent with the laboratory reports.**

RESPONSE: The comparison chart submitted was based on an actual value to reflect any “Clean Up Status” as indicated in “Brown”. Therefore, the lowest value that could be put in the table was a PQL. For future comparisons, if the value is a “non-detect, ND”, the letters of “ND” will be put in table.

VI. SUMMARY- The comments as identified by the New Mexico Environmental Department (NMED)/Hazardous Waste Bureau were addressed in detail as indicated above. Enclosed is the Interim Measures Work Plan for the control and prevention of overflows from the API that is due on April 19, 2010 as required according to the letter of March 4, 2010.

VI. DOCUMENT ENCLOSURES/ATTACHMENTS:

The following enclosures or attachments have been included in order to provide the Agency with a visual reference in order to aid in a better understanding of the event surrounding the API overflows that include sampling. These enclosures include the following:

NMED correspondence letter of March, 2010 "Notice of Disapproval, Clean up Status for API Separator Overflows",

Figure 1- Sampling / Clean Up Plan

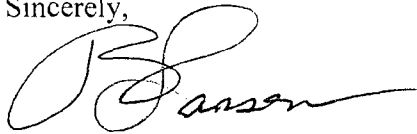
Figure 2- Drawing of the API area indicating the extent of overflow contamination,

Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected),

Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) additional frac tanks, letter from NMED "Notice of Disapproval Cleanup Status for API Separator Overflows"

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen-CHMM, REM

Environmental Engineer

Western Refining (Southwest) (Gallup Refinery)

Enc: NMED correspondence letter of March 4, 2010

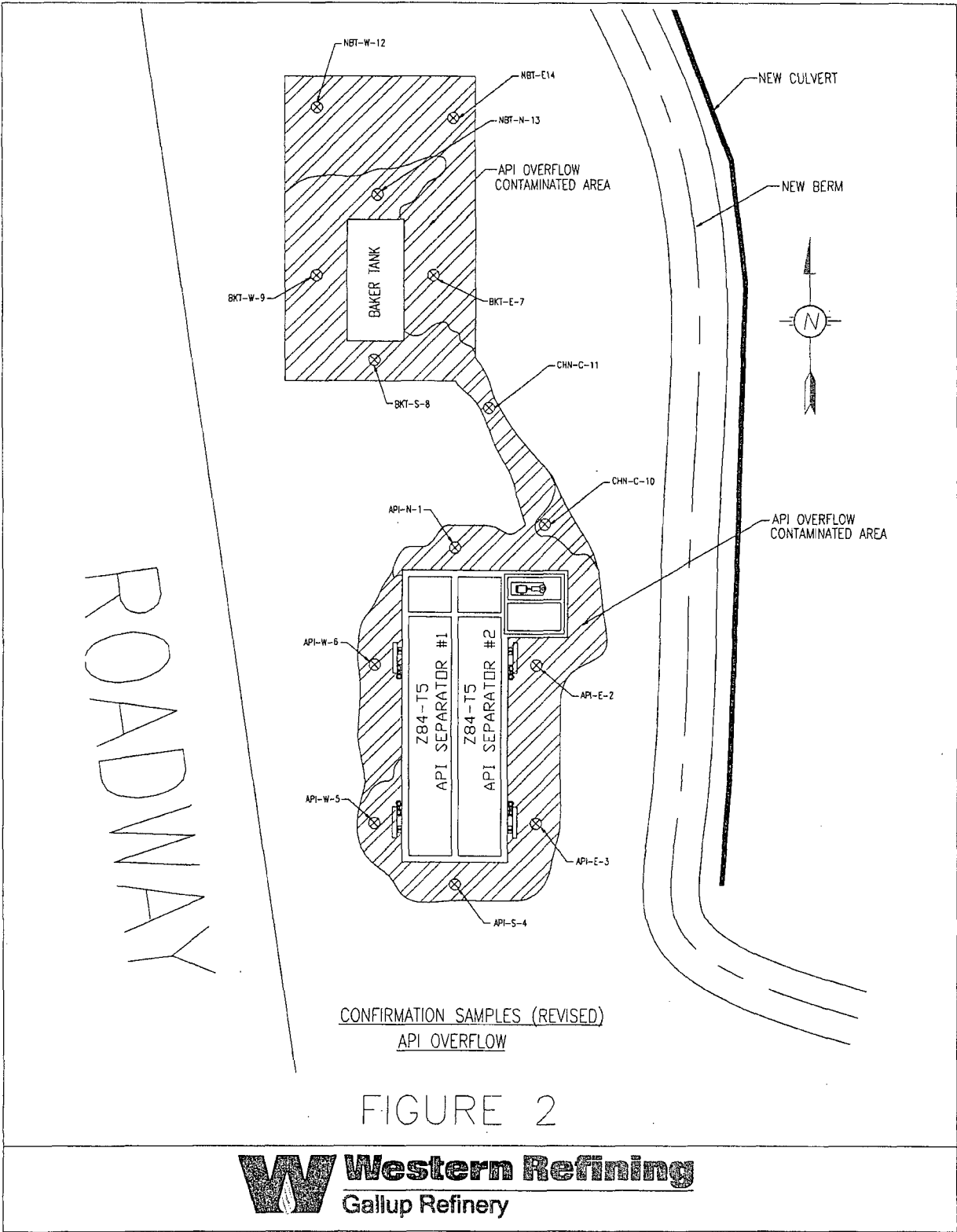
Figure 1- Sampling / Clean Up Plan

Figure 2- Drawing of the API area indicating extent of contamination

Figure 3- Hall Environmental Laboratory Data Summary Spreadsheet (Corrected)

Attachment- Interim Measures Work Plan for Control and Prevention of Overflows from the API Separator- Installation of four (4) Additional Frac Tanks

Cc: Mr. Mark Turri, Gallup (Southwest), Refinery Manager
Mr. Ed Riege, Gallup (Southwest), Environmental Manager)
File
NMED (HWB)- Ms Hope Monzeglio



HALL ENVIRONMENTAL LABORATORY DATA SUMMARY (CORRECTED)

Sample ID: 1001093 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES		Units		NO RCI ANALYTICAL TEST PERFORMED																	MAXIMUM CONTAMINATION FOUND		NMEED SOIL (2006) SCREENING LEVELS (mg/Kg)		NMEED SOIL (2009) SCREENING LEVELS (mg/Kg)		CLEANUP STATUS				
API-N-1		API-E-2		API-E-3		API-S-4		API-W-5		BKT-E-7		BKT-S-8		BKT-W-9		CHN-C-10		CHN-C-11		NBT-W-12		NBT-N-13		NBT-E-14							
TPH	mg/Kg	777	870	1620	8700	210	14	31	1490	2916	560	88	120	110	32	390	720	0	ND	8700	200	206	Contaminated								
DRO	mg/Kg	710	870	1500	8700	210	14	31	1100	560	88	120	110	32	390	720	0	ND	8700	200	206	Contaminated									
MRO	mg/Kg	67	ND	ND	ND	ND	ND	ND	ND	ND	56	72	100	78	120	120	0	ND	120	120	N/A	N/A	N/A	Contaminated							
GRO	mg/Kg	ND	ND	120	ND	ND	ND	ND	390	2300	2300	ND	ND	ND	ND	210	0	ND	2300	2300	N/A	N/A	N/A	Contaminated							
Ignitability	deg F	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND	0	N/A	N/A	O.K.I.							
Corrosivity	s.u.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND	0	N/A	N/A	O.K.I.							
Reactivity (CN)	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND	0	N/A	N/A	O.K.I.							
Reactivity (S)	mg/Kg	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	ND	ND	ND	0	N/A	N/A	O.K.I.							
NO RCI ANALYTICAL TEST PERFORMED																															
METALS																															
As	mg/Kg	420	500	380	480	130	450	500	350	640	350	380	350	350	310	350	350	0	17.7	17.7	17.7	O.K.I.									
Ba	mg/Kg	5.6	4.0	73	5.2	1.7	3.4	8.7	7.6	9.0	9.1	11	9.1	9.1	7.3	5.0	7.3	640	100000	224000	224000	O.K.I.									
Cd	mg/Kg	1.9	1.3	3.5	4.0	3.3	1.3	5.6	5.8	6.8	7.2	5.8	7.7	7.7	6.5	6.2	7.7	0	564	1120	1120	O.K.I.									
Cr (+3)	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Cr (+6)	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Pb	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Hg	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Sb	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Se	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
Ag	mg/Kg	0.048	0.11	0.11	0.11	0.035	0.071	0.071	0.071	0.071	0.071	0.077	0.068	0.068	0.067	0.067	0.067	73	100000	1570000	1570000	O.K.I.									
VOLATILES																															
Benzene	mg/Kg	0.88	0.081	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	6.9	258 (25.8)	85.4	85.4	O.K.I.									
Toluene	mg/Kg	0.88	0.081	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	14	252	57900	57900	O.K.I.									
Ethylbenzene	mg/Kg	0.88	0.081	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	0.15	0.91	28	128	385	385	O.K.I.									
1,2,4-Trimethylbenzene	mg/Kg	0.36	0.22	0.74	1.1	0.16	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	53	269	N/A	N/A	O.K.I.									
1,3,5-Trimethylbenzene	mg/Kg	0.36	0.22	0.74	1.1	0.16	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	53	269	N/A	N/A	O.K.I.									
Naphthalene	mg/Kg	1.0	1.4	2.0	1.7	0.35	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	20	69.2	N/A	N/A	O.K.I.									
1-Methylnaphthalene	mg/Kg	1.0	1.4	2.0	1.7	0.35	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	13	300	252	252	O.K.I.									
2-Methylnaphthalene	mg/Kg	1.0	1.4	2.0	1.7	0.35	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	0.71	0.34	17	N/A	N/A	N/A	O.K.I.									
Isopropylbenzene (Cumene)	mg/Kg	0.64	0.22	0.74	1.1	0.16	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	35	N/A	N/A	N/A	O.K.I.									
4-Isopropyltoluene	mg/Kg	0.64	0.22	0.74	1.1	0.16	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	0.24	0.31	5.4	N/A	N/A	14900	O.K.I.									
n-Butylbenzene	mg/Kg	0.22	0.74	1.1	0.91	0.13	0.13	0.13	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	N/A	N/A	N/A	N/A	O.K.I.								
n-Propylbenzene	mg/Kg	0.22	0.74	1.1	0.91	0.13	0.13	0.13	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	6.2	N/A	N/A	N/A	O.K.I.									
sec-Butylbenzene	mg/Kg	0.055	0.11	0.11	0.56	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	10	62.1	N/A	N/A	O.K.I.									
Xylene, Total	mg/Kg	0.055	0.11	0.11	0.56	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	0.12	2.6	60.6	N/A	N/A	O.K.I.									
SEMIVOLATILES																															
Fluorene	mg/Kg	0.47	1.1	1.1	9.2	0.21	2.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.9	26500	24400	24400	O.K.I.									
Phenanthrene	mg/Kg	0.47	1.1	1.1	9.2	0.21	2.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	9.2	20500	20500	20500	O.K.I.									
Phenol	mg/Kg	0.47	1.1	1.1	9.2	0.21	2.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.36	N/A	N/A	N/A	O.K.I.									
Pyrene	mg/Kg	0.26	1.1	1.1	9.2	0.21	2.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1	30900	18300	18300	O.K.I.									
2-Methylnaphthalene	mg/Kg	0.26	1.1	1.1	9.2	0.21	2.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	29	N/A	N/A	N/A	O.K.I.									
Naphthalene	mg/Kg	0.5	1.6	2.1	1.1	0.49	2.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	59	300	252	252	O.K.I.									

NOTE: BLANKS indicate a Non-detect (ND).
"Light Blue" color area highlights (DRO) REQUIRED; IF DRO > 200 ppm, 8270 method was to be run. However, Method 8270 (Semi-volatiles) was run on ALL sample points)
"Yellow" color area highlights the maximum contaminant for a particular sample ID above
"Green" highlights the NMEED Soil Screen Levels (mg/Kg) for Industrial Facilities for a particular contaminant
"Brown" (CLEANUP STATUS) indicates that cleanup was sufficient or insufficient based on NMEED Soil Screening Levels for Industrial Facilities

NOTE: SCREENING GUIDELINES BASED ON AUGUST 2009 NMEED TABLE

Interim Measures Work Plan for Control and Prevent of Overflows from the API Separator- Installation of Four (4) Additional Frac Tanks

**Western Refining
Gallup, New Mexico**



April 2010

Attachment

Interim Measures Work Plan
WESTERN REFINING SOUTHWEST, INC., GALLUP REFINERY
EPA ID #NMD000333211
April 2010

Executive Summary

This report describes Western Refining's Interim Measures Work Plan to comply with Section IV.B.6 (Post-closure Care Permit) that will control and prevent all future overflows from the API separator to the ground surface until the Stormwater Diversion Project is installed and operational. Western Refining (Gallup Refinery) is in the design phase of a new Stormwater Diversion Project in order to eliminate these overflows from the new API due to unexpected or inundated stormwater discharges. The original Stormwater Diversion project is comprised of two (2) Stormwater Diversion Tanks (T-27 and T-28) having a capacity of 5000 barrels each. These tanks are to be utilized as additional storage capacity for potentially contaminated stormwater from the process unit areas.

There is one (1) frac tank (500 bbl capacity) in use that receives overflow from the API separator during excessive flow events. During normal situation, it has sufficient volume to prevent the API separator from overflowing on to the ground. In order to address excessive stormwater events, four (4) additional frac tanks with a capacity of 500 bbls each are being installed. This increase will allow for a total influx capacity of 2500 bbls of additional stormwater and process water to the API during heavy storm events.

The 2009 API overflows are primarily as a result of weather related issues. These overflows occurred on September 5 and December 8, 2009. These overflows occurred due to inundation of stormwater to the API unit causing the API to overflow from the top. This work plan will address this issue and corrections made to the API system in order to prevent this occurrence in the future.

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1.0 Introduction and Background

Western Refining-(Southwest)-(Gallup Refinery) has had a couple of API overflows during 2009 as a result of weather related issues. The API overflows occurred on September 5 and December 8, 2009. These overflows occurred due to inundation of stormwater to the API unit causing the API to overflow from the top. This work plan will address this issue and corrections made to the API system in order to prevent this occurrence in the future.

On September 5, 2009 another heavy rain and thunderstorm passed over the facility. Once again the API began overflowing from the top as a result of this event. The estimated quantity of oily water from this event was determined to be 230 bbls and 6 ½ bbls of oil.

On December 8, 2009 another heavy rain and thunderstorm passed over the facility. In addition to excessive stormwater, the facility experienced a plant wide reduction in power that corresponded to a 15 to 20 percent power reduction. This power reduction translated to a total power failure to all units. This power failure caused the API began overflowing from the top as a result of this event. The estimated quantity of oily water from this event was determined to be 739 bbls and 7 ½ bbls of oil.

A working group including engineers, operators, management staff, including the refinery and maintenance managers was created to solve wastewater issues. This group meets on a bi-weekly basis in order to discuss API issues including overflows at the API. Action items are developed, evaluated, and implemented.

2.0 Current Conditions

This Interim Measures Work Plan is to comply with requirements of Section IV.B.6 (Post-closure Care Permit) in order to control and prevent all future overflows from the API separator to the ground surface until the Stormwater Diversion Project is installed and operational. Western Refining (Gallup Refinery) is in the design phase of a new Stormwater Diversion Project in order to eliminate these overflows from the new API due to unexpected or inundated stormwater discharges. The Stormwater Diversion project includes two (2) Stormwater Diversion Tanks (T-27 and T-28) having a capacity of 5000 barrels each. These tanks are to be utilized as additional storage capacity for potentially contaminated stormwater from the process unit areas.

The facility has one (1) frac tank with a capacity of 500 bbls located at the new API separator area that is used during excessive flow events from the process units. Under normal conditions, this frac tank is sufficient in volume in order to contain overflows from the API separator due to minor storm surges as a result of inclement weather. In order to address excessive storm events, Western Refining is in the process of installing four (4) additional frac tanks with a capacity of 500 bbls each providing a total of 2000 bbls additional capacity. The total frac tank storage allowable for overflow conditions will be 2500 bbls. This quantity exceeds the maximum capacity of any of the overflow volumes encountered during 2009. Completion of the Stormwater Diversion project will

allow for an additional influx capacity of 10000 barrels of potentially contaminated and contaminated stormwater to be diverted from the API separator.

3.0 Physical Changes

The existing frac tank (500 bbls) is connected to the new API separator. This tank collects overflow liquids from the API due to excess flow from the process units. The only design change to this set up is to add four (4) additional frac tanks (500 bbls each) to the existing system. The importance of this as the first step is to be able to handle any API overflows in order to assure that this will not occur. Tank installation has to be the first step because any API overflow will cause additional contamination in this same area that we are trying to remediate. Dirt Work has to be done to insure a solid foundation for the baker tanks. The dirt work and frac tank installation will be on a non-contaminated area north of the existing baker tank. Next, Piping has to be fabricated. Baker Tanks Co has to deliver four (4) frac tanks to this location. Piping will then have to be connected to each frac tank.

3.0 Schedule

Western Refining has prepared and is in the process of implementation of the Interim Measures Plan as directed by NMED/HWB in the previous correspondence of March 4, 2010. This frac tank installation should take up to three weeks to complete.

4.0 Summary

- The important element of the Interim Measures Work Plan is to install and pipe four (4) additional frac tanks (500 bbl each) in conjunction to the existing frac tank (500 bbl) to the new API separator system in order to provide additional storage capacity during excess storm or API overflow event. The additional storage capacity will insure that the new API will not overflow to the ground in the future.

Appendix A: NMED's March 4, 2009 letter (Interim Measures Work Plan Requirements, Comment 4)



LUIS R. CHAZARIN
Governor
MARK DANISH
Lieutenant Governor

NEW MEXICO ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6805
Phone (505) 476-6000 Fax (505) 476-6030
www.nmed.state.nm.us



JOHN MURPHY
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 4, 2010

Mr. Ed Riigo
Environmental Manager
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Boek Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL
CLEAN UP STATUS FOR API SEPARATOR OVERFLOWS
(SEPTEMBER 5, 2009 & DECEMBER 8, 2009) 2009
WESTERN REFINING SOUTHWEST INC. GALLUP REFINERY
EPA ID NO. NM000033211
AWB-CRCC-MISC

Dear Messrs. Riigo and Larsen:

The New Mexico Environment Department (NMED) has reviewed Western Refining Southwest Inc., Gallup Refinery's (the Permittee) *Cleanup Status for Western Refining (Gallup Refinery) for API Overflow on September 5, 2009 and API Overflow on December 8, 2009* (Report) dated January 25, 2010, and NMED hereby issues this Notice of Disapproval (NOD).

Comment 1

On page 4, Item d, the Permittee states "the sampler excavated potentially contaminated soil at the locations as designated on the sampling plan to a maximum depth of 6 inches. The sampler followed proper decontamination procedures between all fourteen sample points in order to minimize any cross contamination. The samples were collected in an 8 oz jar for shipment to Hall Environmental Laboratory."

Mr. De Riege
Gallup Refinery
March 4, 2010
Page 2 of 4

The Permittee must describe in detail the sampling collection methods and procedures that were used to collect the confirmation samples (e.g., how were the samples collected, were they discrete or composite samples, how were any composite samples collected, what equipment was used (shovel, core sampler) to collect the samples). The Permittee must also describe the decontamination process of the sampling equipment (e.g., equipment was cleaned in a non-phosphate solution followed by a rinse using deionized water).

Comment 2

On page 5, the Permittee states "Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories." The Permittee must provide a schedule for when the additional sampling and clean up activities will be conducted and be completed.

Comment 3

The Permittee must address the following regarding the "Confirmation Samples" figure that identifies the areas requiring additional excavation and confirmation sampling.

- a. The figure shows two hatched areas: the blue hatch identifies the "Area of Possible Contamination" and the red hatch identifies that the "Area is Contaminated." The Report indicates that the red hatched area is where additional excavation and confirmation sampling will occur. The Permittee must explain the difference between the red and blue hatched areas, and specifically why the "Area of Possible Contamination" does not require additional sampling.
- b. The area west of the Baker Tank is hatched red indicating that additional excavation and confirmation sampling will occur; however, there are two small areas within the red hatch that are blue (the west edge of the excavation and the southwest corner edge of the excavation), an area which indicates no further sampling will be conducted. It is not clear how the Permittee determined that these "blue" areas do not need additional excavation and sampling. Additionally, it is unclear how the Permittee determined the areas north and south of sample location API-W-6 do not need additional excavation. The Permittee must explain how the borders between the "Area of Possible Contamination" and the "Area is Contaminated" were determined.
- c. Additional sampling is necessary to define the horizontal and the vertical extent of contamination in areas where contaminants are still present. The Permittee must revise the Confirmation Sampling figure to address items a and b and propose additional sampling. The Permittee must be able to demonstrate that cleanup of contamination surrounding the API separator and Baker Tank has been completed.

Mr. Ed Rege
Gallup Refinery
March 4, 2010
Page 3 of 4

Comment 4

In NMED's September 15, 2009 letter regarding the *Formal Report Submitted to the September 5, 2009 API Separator Overflow*, NMED directed the Permittee to provide steps that would be implemented to ensure overflows to the API separator do not continue to occur. On page 5 of the Report, the Permittee states "[b]oth the API overflows were the direct result of inclement weather conditions that were beyond the control of the Refinery. Gallup is in the design phase of a new 'Stormwater Diversion Project' in order to eliminate overflows from the new API due to unexpected or inundated stormwater discharges. This project will be composed of two (2) Stormwater Diversion Tanks (T-27 and T-28) and an additional diversionary tank. This new system will connect directly into the current stormwater system. A new twenty-four inch (24") pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API."

The overflows were a direct result of weather, which cannot be controlled by the Permittee; however, the Permittee can control how the overflows are handled so that the wastewater will not flow to the ground surface. The Stormwater Diversion Project is not yet installed. Until it is, the API separator must prevent releases from the API separator to the ground surface. The Permittee must propose an interim measure in accordance with Section IV.B.6 (Interim Measures (IMs)) of the Post-Closure Care Permit that will control and prevent all overflows from the API separator to the ground surface until the Stormwater Diversion Project is installed and operational. The Interim Measures Work Plan is due to NMED on or before April 19, 2010.

Comment 5

The following comments address the "NM Environmental Laboratory Data Summary" Table (Table).

- a. NMED updated their Soil Screening Levels (NMED SSLs). (December 2009). The updated NMED SSLs must be applied to all future comparisons. The changes in the December 2009 version of the NMED SSLs do not affect the information provided in this table with the exception of xylanes, for which the reported detection is below the NM SSL Industrial value of 3,610 mg/kg. No revision to the Table is necessary.
- b. In the Table, the Permittee presents the chromium III value of 100,000 mg/kg. In the future, the Permittee must apply the chromium VI value unless chromium has been specified or the Permittee can otherwise demonstrate the chromium present in the sample is chromium III. No revision is necessary as the chromium detections are below the industrial chromium VI value.
- c. The barrene standard in the table states "258 mg/kg." The standard in the NMED SST's June 2006 is 26.8 mg/kg. No revision to the Table is necessary since the

Mr. Ed Riege
Gallup Refinery
March 4, 2010
Page 7 of 4

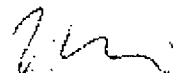
benzene detections are below the NMED SSIs December 2009 industrial standard of 35.4 $\mu\text{g}/\text{kg}$.

- a. The "DRO" row under the brown shaded column titled "CLEANUP STATUS" states "ok," indicating no additional cleanup is necessary. However, listed detections exceed the cleanup standard and additional cleanup activities are required. No revision is necessary as the locations that have detections above the cleanup standard are designated as requiring additional cleanup in the Report. The Permittee must ensure the text, tables, and figures are consistent with one another. No revisions are necessary.
- b. According to the laboratory reports, gasoline range organics (GRO) were not detected at the following sample locations: API-N-1, API-E-2, API-S-4, API-W-5, API-W-6, CHN-C-10, CHN-C-11, NBT-W-12, NBT-B-14; however, the Table includes detections for these locations. The detections provided in the Table are the PQL values found in the laboratory reports. Since there were no detections, no revision is necessary. In the future, the Permittee must ensure the tables are consistent with the laboratory reports.

The Permittee must address all comments requiring a response, and submit a response to NMED on or before April 19, 2010. The Interim Measures Work Plan (Comment 4) is also due April 19, 2010.

If you have questions please contact Kristen Van Horn at 505-476-6265.

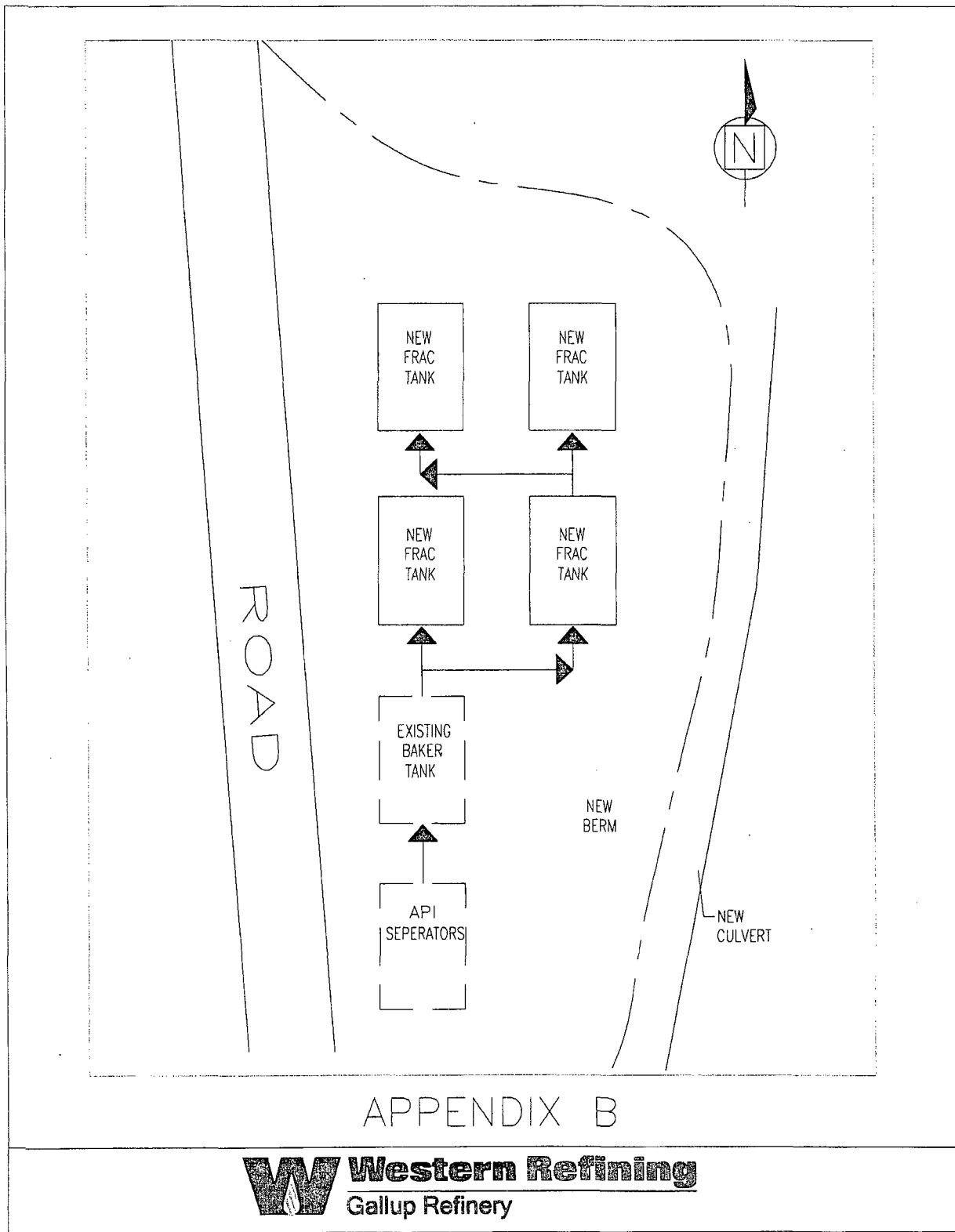
Sincerely,

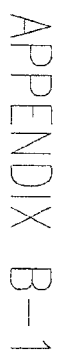


James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kioling, NMED HWB
D. Coburn, NMED HWB
H. Micizengho, NMED HWB
K. Van Horn, NMED HWB
C. Chavez, NVRVNRD OGD
File: Reading File and WRG 2010

Appendix B: API Area Drawing with Newly Installed Baker Frac Tanks





DATE	1/28	=	1-0	ABV	ABV
TIME	11-1	7:48		ABV	ABV
REF	1/28			1	REV
CHKD	1/28				2

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Monday, April 26, 2010 11:00 AM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Subject: Sour Naphtha Line Leak

Dear Brandon,

As per our conversation, we had a sour naphtha line leak over the weekend. The incident occurred on Saturday, April 24, at 1100 hrs. A sour naphtha line going under the concrete road from the process area to the tank farm was found to be leaking. Operations immediately began to search for the source, isolated the line and blocked it in. The concrete was removed in this area and contaminated soil was removed in order to repair the line. This is a sour naphtha product line feed going to the NHT/DHT Units; however, the concentration of H₂S is undetermined at this time. A C-141 will be submitted as soon as the fully details of the incident has been determined. The section of line will be replaced with a newly fabricated line. The contaminated soil will be put in a roll-off for off-site disposal. If you should have any additional questions concerning this matter, please contact me at (505) 722-0258.

Sincerely,
Beck Larsen

COVER LETTER

Friday, January 15, 2010

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sample Points

Order No.: 1001093

Dear Thurman B. Larsen:

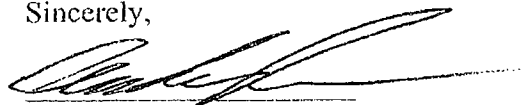
Hall Environmental Analysis Laboratory, Inc. received 14 sample(s) on 1/8/2010 for the analyses presented in the following report.

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, Laboratory Manager

NM Lab # NM9425 NM0901

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



CLIENT: Western Refining Southwest, Gallup
Project: API Overflow Sample Points
Lab Order: 1001093

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1001093
Project: API Overflow Sample Points
Lab ID: 1001093-01

Client Sample ID: API-N-1
Collection Date: 1/6/2010 10:30:00 AM
Date Received: 1/8/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	710	10		mg/Kg	1	1/12/2010 10:16:16 AM
Motor Oil Range Organics (MRO)	67	50		mg/Kg	1	1/12/2010 10:16:16 AM
Surr: DNOP	121	61.7-135		%REC	1	1/12/2010 10:16:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	1/13/2010 12:07:56 PM
Surr: BFB	106	65.9-118		%REC	5	1/13/2010 12:07:56 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.048	0.033		mg/Kg	1	1/12/2010 3:28:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:07:52 PM
Barium	420	1.0		mg/Kg	10	1/11/2010 3:01:52 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:07:52 PM
Chromium	6.6	1.5		mg/Kg	5	1/11/2010 1:07:52 PM
Lead	1.9	1.3		mg/Kg	5	1/11/2010 1:07:52 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:07:52 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:07:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-01

Client Sample ID: API-N-1
 Collection Date: 1/6/2010 10:30:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 2:43:43 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 2:43:43 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 2:43:43 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
2-Methylnaphthalene	0.50	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 2:43:43 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 2:43:43 PM
Phenanthrene	0.47	0.20		mg/Kg	1	1/12/2010 2:43:43 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-01

Client Sample ID: API-N-1
 Collection Date: 1/6/2010 10:30:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 2:43:43 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 2:43:43 PM
Surr: 2,4,6-Tribromophenol	70.1	35.5-141		%REC	1	1/12/2010 2:43:43 PM
Surr: 2-Fluorobiphenyl	72.2	30.4-128		%REC	1	1/12/2010 2:43:43 PM
Surr: 2-Fluorophenol	63.7	28.1-129		%REC	1	1/12/2010 2:43:43 PM
Surr: 4-Terphenyl-d14	48.5	34.6-151		%REC	1	1/12/2010 2:43:43 PM
Surr: Nitrobenzene-d5	64.6	26.5-122		%REC	1	1/12/2010 2:43:43 PM
Surr: Phenol-d5	62.3	37.6-118		%REC	1	1/12/2010 2:43:43 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Toluene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2,4-Trimethylbenzene	0.88	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,3,5-Trimethylbenzene	0.36	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Naphthalene	0.32	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
1-Methylnaphthalene	1.0	0.20		mg/Kg	1	1/12/2010 3:51:55 PM
2-Methylnaphthalene	1.6	0.20		mg/Kg	1	1/12/2010 3:51:55 PM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 3:51:55 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 3:51:55 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 3:51:55 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-01

Client Sample ID: API-N-1
 Collection Date: 1/6/2010 10:30:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 3:51:55 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
4-Isopropyltoluene	0.064	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 3:51:55 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 3:51:55 PM
n-Butylbenzene	0.22	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
sec-Butylbenzene	0.055	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 3:51:55 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/12/2010 3:51:55 PM
Surr: 1,2-Dichloroethane-d4	95.7	59.5-119		%REC	1	1/12/2010 3:51:55 PM
Surr: 4-Bromofluorobenzene	100	57.9-141		%REC	1	1/12/2010 3:51:55 PM
Surr: Dibromofluoromethane	107	65.4-122		%REC	1	1/12/2010 3:51:55 PM
Surr: Toluene-d8	82.2	81.1-112		%REC	1	1/12/2010 3:51:55 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-02

Client Sample ID: API-E-2
 Collection Date: 1/6/2010 10:45:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	870	100		mg/Kg	10	1/13/2010 10:54:17 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	1/13/2010 10:54:17 AM
Surr: DNOP	94.6	61.7-135		%REC	10	1/13/2010 10:54:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	1/13/2010 12:36:43 PM
Surr: BFB	101	65.9-118		%REC	10	1/13/2010 12:36:43 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:30:32 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:12:08 PM
Barium	500	2.0		mg/Kg	20	1/11/2010 3:34:57 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:12:08 PM
Chromium	4.0	1.5		mg/Kg	5	1/11/2010 1:12:08 PM
Lead	ND	1.3		mg/Kg	5	1/11/2010 1:12:08 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:12:08 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:12:08 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-02

Client Sample ID: API-E-2
 Collection Date: 1/6/2010 10:45:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 3:13:07 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 3:13:07 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 3:13:07 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
2-Methylnaphthalene	1.6	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 3:13:07 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 3:13:07 PM
Phenanthrene	1.1	0.20		mg/Kg	1	1/12/2010 3:13:07 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-02

Client Sample ID: API-E-2
 Collection Date: 1/6/2010 10:45:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Pyrene	0.26	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 3:13:07 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 3:13:07 PM
Surr: 2,4,6-Tribromophenol	35.4	35.5-141	S	%REC	1	1/12/2010 3:13:07 PM
Surr: 2-Fluorobiphenyl	78.3	30.4-128		%REC	1	1/12/2010 3:13:07 PM
Surr: 2-Fluorophenol	39.8	28.1-129		%REC	1	1/12/2010 3:13:07 PM
Surr: 4-Terphenyl-d14	50.3	34.6-151		%REC	1	1/12/2010 3:13:07 PM
Surr: Nitrobenzene-d5	75.1	26.5-122		%REC	1	1/12/2010 3:13:07 PM
Surr: Phenol-d5	48.3	37.6-118		%REC	1	1/12/2010 3:13:07 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Toluene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2,4-Trimethylbenzene	0.081	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Naphthalene	0.22	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
1-Methylnaphthalene	1.4	0.20		mg/Kg	1	1/12/2010 4:48:07 PM
2-Methylnaphthalene	1.6	0.20		mg/Kg	1	1/12/2010 4:48:07 PM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 4:48:07 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 4:48:07 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 4:48:07 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-E-2

Lab Order: 1001093

Collection Date: 1/6/2010 10:45:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 4:48:07 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 4:48:07 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 4:48:07 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 4:48:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/12/2010 4:48:07 PM
Surr: 1,2-Dichloroethane-d4	97.0	59.5-119		%REC	1	1/12/2010 4:48:07 PM
Surr: 4-Bromofluorobenzene	99.2	57.9-141		%REC	1	1/12/2010 4:48:07 PM
Surr: Dibromofluoromethane	110	65.4-122		%REC	1	1/12/2010 4:48:07 PM
Surr: Toluene-d8	90.5	81.1-112		%REC	1	1/12/2010 4:48:07 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 8 of 56

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-E-3

Lab Order: 1001093

Collection Date: 1/6/2010 10:59:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1500	200		mg/Kg	20	1/13/2010 11:30:47 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	1/13/2010 11:30:47 AM
Surr: DNOP	0	61.7-135	S	%REC	20	1/13/2010 11:30:47 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	120	50		mg/Kg	10	1/13/2010 1:05:30 PM
Surr: BFB	124	65.9-118	S	%REC	10	1/13/2010 1:05:30 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.11	0.033		mg/Kg	1	1/12/2010 3:35:51 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:16:23 PM
Barium	380	1.0		mg/Kg	10	1/11/2010 3:05:48 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:16:23 PM
Chromium	73	1.5		mg/Kg	5	1/11/2010 1:16:23 PM
Lead	3.5	1.3		mg/Kg	5	1/11/2010 1:16:23 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:16:23 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:16:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Acenaphthylene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Aniline	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Anthracene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Azobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Benzoic acid	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Carbazole	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-E-3

Lab Order: 1001093

Collection Date: 1/6/2010 10:59:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Chrysene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Dibenzofuran	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	1/12/2010 3:42:20 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	1/12/2010 3:42:20 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	1/12/2010 3:42:20 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
Fluoranthene	ND	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
Fluorene	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Hexachloroethane	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
Isophorone	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
2-Methylnaphthalene	2.1	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
2-Methylphenol	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Naphthalene	0.49	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
4-Nitroaniline	ND	0.50		mg/Kg	1	1/12/2010 3:42:20 PM
Nitrobenzene	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
4-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	1/12/2010 3:42:20 PM
Phenanthrene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-03

Client Sample ID: API-E-3
 Collection Date: 1/6/2010 10:59:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Pyrene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Pyridine	ND	1.0		mg/Kg	1	1/12/2010 3:42:20 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 3:42:20 PM
Surr: 2,4,6-Tribromophenol	38.9	35.5-141		%REC	1	1/12/2010 3:42:20 PM
Surr: 2-Fluorobiphenyl	52.4	30.4-128		%REC	1	1/12/2010 3:42:20 PM
Surr: 2-Fluorophenol	47.5	28.1-129		%REC	1	1/12/2010 3:42:20 PM
Surr: 4-Terphenyl-d14	40.3	34.6-151		%REC	1	1/12/2010 3:42:20 PM
Surr: Nitrobenzene-d5	52.5	26.5-122		%REC	1	1/12/2010 3:42:20 PM
Surr: Phenol-d5	49.7	37.6-118		%REC	1	1/12/2010 3:42:20 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Toluene	0.060	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Ethylbenzene	0.15	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2,4-Trimethylbenzene	1.1	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,3,5-Trimethylbenzene	1.1	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Naphthalene	0.74	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
1-Methylnaphthalene	2.0	0.20		mg/Kg	1	1/12/2010 5:44:40 PM
2-Methylnaphthalene	3.0	0.20		mg/Kg	1	1/12/2010 5:44:40 PM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 5:44:40 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 5:44:40 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 5:44:40 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 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

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CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-03

Client Sample ID: API-E-3
 Collection Date: 1/6/2010 10:59:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 5:44:40 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
4-Isopropyltoluene	0.11	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 5:44:40 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 5:44:40 PM
n-Butylbenzene	0.71	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
n-Propylbenzene	0.097	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
sec-Butylbenzene	0.11	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 5:44:40 PM
Xylenes, Total	0.80	0.10		mg/Kg	1	1/12/2010 5:44:40 PM
Surr: 1,2-Dichloroethane-d4	120	59.5-119	S	%REC	1	1/12/2010 5:44:40 PM
Surr: 4-Bromofluorobenzene	160	57.9-141	S	%REC	1	1/12/2010 5:44:40 PM
Surr: Dibromofluoromethane	121	65.4-122		%REC	1	1/12/2010 5:44:40 PM
Surr: Toluene-d8	83.3	81.1-112		%REC	1	1/12/2010 5:44:40 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

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-04

Client Sample ID: API-S-4
 Collection Date: 1/6/2010 11:15:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	8700	100		mg/Kg	10	1/13/2010 12:44:18 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	1/13/2010 12:44:18 PM
Surr: DNOP	0	61.7-135	S	%REC	10	1/13/2010 12:44:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	1/13/2010 1:34:15 PM
Surr: BFB	125	65.9-118	S	%REC	20	1/13/2010 1:34:15 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:37:39 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:27:27 PM
Barium	480	1.0		mg/Kg	10	1/11/2010 3:07:52 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:27:27 PM
Chromium	5.2	1.5		mg/Kg	5	1/11/2010 1:27:27 PM
Lead	4.0	1.3		mg/Kg	5	1/11/2010 1:27:27 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:27:27 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:27:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-04

Client Sample ID: API-S-4
 Collection Date: 1/6/2010 11:15:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 4:11:51 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 4:11:51 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 4:11:51 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 4:11:51 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 4:11:51 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 4:11:51 PM
Fluorene	1.9	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 4:11:51 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
2-Methylnaphthalene	29	2.5		mg/Kg	10	1/13/2010 2:26:25 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Naphthalene	0.59	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 4:11:51 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 4:11:51 PM
Phenanthrene	9.2	2.0		mg/Kg	10	1/13/2010 2:26:25 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-04

Client Sample ID: API-S-4
 Collection Date: 1/6/2010 11:15:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Pyrene	1.1	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 4:11:51 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:11:51 PM
Surr: 2,4,6-Tribromophenol	53.0	35.5-141		%REC	10	1/13/2010 2:26:25 PM
Surr: 2-Fluorobiphenyl	57.1	30.4-128		%REC	1	1/12/2010 4:11:51 PM
Surr: 2-Fluorophenol	77.6	28.1-129		%REC	1	1/12/2010 4:11:51 PM
Surr: 4-Terphenyl-d14	44.2	34.6-151		%REC	1	1/12/2010 4:11:51 PM
Surr: Nitrobenzene-d5	62.4	26.5-122		%REC	1	1/12/2010 4:11:51 PM
Surr: Phenol-d5	78.5	37.6-118		%REC	1	1/12/2010 4:11:51 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Toluene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Ethylbenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2,4-Trimethylbenzene	11	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,3,5-Trimethylbenzene	1.1	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2-Dichloroethane (EDC)	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2-Dibromoethane (EDB)	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Naphthalene	1.1	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
1-Methylnaphthalene	17	1.0		mg/Kg	5	1/12/2010 8:05:00 PM
2-Methylnaphthalene	35	2.0		mg/Kg	10	1/11/2010 4:50:35 PM
Acetone	ND	3.8		mg/Kg	5	1/12/2010 8:05:00 PM
Bromobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Bromodichloromethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Bromoform	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Bromomethane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
2-Butanone	ND	2.5		mg/Kg	5	1/12/2010 8:05:00 PM
Carbon disulfide	ND	2.5		mg/Kg	5	1/12/2010 8:05:00 PM
Carbon tetrachloride	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
Chlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Chloroethane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
Chloroform	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Chloromethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
2-Chlorotoluene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
4-Chlorotoluene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
cis-1,2-DCE	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
cis-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2-Dibromo-3-chloropropane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-S-4

Lab Order: 1001093

Collection Date: 1/6/2010 11:15:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Dibromomethane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
1,2-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,3-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,4-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Dichlorodifluoromethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,1-Dichloroethane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
1,1-Dichloroethene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2-Dichloropropane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,3-Dichloropropane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
2,2-Dichloropropane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
1,1-Dichloropropene	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
Hexachlorobutadiene	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
2-Hexanone	ND	2.5		mg/Kg	5	1/12/2010 8:05:00 PM
Isopropylbenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
4-Isopropyltoluene	0.44	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
4-Methyl-2-pentanone	ND	2.5		mg/Kg	5	1/12/2010 8:05:00 PM
Methylene chloride	ND	0.75		mg/Kg	5	1/12/2010 8:05:00 PM
n-Butylbenzene	0.72	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
n-Propylbenzene	0.43	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
sec-Butylbenzene	0.56	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Styrene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
tert-Butylbenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,1,1,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,1,2,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Tetrachloroethene (PCE)	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
trans-1,2-DCE	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
trans-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2,3-Trichlorobenzene	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
1,2,4-Trichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,1,1-Trichloroethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,1,2-Trichloroethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Trichloroethene (TCE)	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Trichlorofluoromethane	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
1,2,3-Trichloropropane	ND	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
Vinyl chloride	ND	0.25		mg/Kg	5	1/12/2010 8:05:00 PM
Xylenes, Total	1.9	0.50		mg/Kg	5	1/12/2010 8:05:00 PM
Surr: 1,2-Dichloroethane-d4	97.3	59.5-119		%REC	5	1/12/2010 8:05:00 PM
Surr: 4-Bromofluorobenzene	114	57.9-141		%REC	5	1/12/2010 8:05:00 PM
Surr: Dibromofluoromethane	112	65.4-122		%REC	5	1/12/2010 8:05:00 PM
Surr: Toluene-d8	88.2	81.1-112		%REC	5	1/12/2010 8:05:00 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-05

Client Sample ID: API-W-5
 Collection Date: 1/6/2010 11:20:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	210	10		mg/Kg	1	1/12/2010 11:28:25 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/12/2010 11:28:25 AM
Surr: DNOP	108	61.7-135		%REC	1	1/12/2010 11:28:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	1/13/2010 2:03:00 PM
Surr: BFB	106	65.9-118		%REC	5	1/13/2010 2:03:00 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:39:27 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:31:36 PM
Barium	130	0.50		mg/Kg	5	1/11/2010 1:31:36 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:31:36 PM
Chromium	1.7	1.5		mg/Kg	5	1/11/2010 1:31:36 PM
Lead	3.3	1.3		mg/Kg	5	1/11/2010 1:31:36 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:31:36 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:31:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-W-5

Lab Order: 1001093

Collection Date: 1/6/2010 11:20:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 4:41:07 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 4:41:07 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 4:41:07 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 4:41:07 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 4:41:07 PM
Phenanthrene	0.21	0.20		mg/Kg	1	1/12/2010 4:41:07 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

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CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-05

Client Sample ID: API-W-5
 Collection Date: 1/6/2010 11:20:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 4:41:07 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 4:41:07 PM
Surr: 2,4,6-Tribromophenol	61.8	35.5-141		%REC	1	1/12/2010 4:41:07 PM
Surr: 2-Fluorobiphenyl	56.8	30.4-128		%REC	1	1/12/2010 4:41:07 PM
Surr: 2-Fluorophenol	54.6	28.1-129		%REC	1	1/12/2010 4:41:07 PM
Surr: 4-Terphenyl-d14	42.0	34.6-151		%REC	1	1/12/2010 4:41:07 PM
Surr: Nitrobenzene-d5	50.9	26.5-122		%REC	1	1/12/2010 4:41:07 PM
Surr: Phenol-d5	55.4	37.6-118		%REC	1	1/12/2010 4:41:07 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Toluene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2,4-Trimethylbenzene	0.090	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,3,5-Trimethylbenzene	0.16	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Naphthalene	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
1-Methylnaphthalene	0.35	0.20		mg/Kg	1	1/12/2010 9:01:34 PM
2-Methylnaphthalene	0.34	0.20		mg/Kg	1	1/12/2010 9:01:34 PM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 9:01:34 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 9:01:34 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 9:01:34 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-05

Client Sample ID: API-W-5
 Collection Date: 1/6/2010 11:20:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 9:01:34 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 9:01:34 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 9:01:34 PM
n-Butylbenzene	0.13	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 9:01:34 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/12/2010 9:01:34 PM
Surr: 1,2-Dichloroethane-d4	97.7	59.5-119		%REC	1	1/12/2010 9:01:34 PM
Surr: 4-Bromofluorobenzene	96.4	57.9-141		%REC	1	1/12/2010 9:01:34 PM
Surr: Dibromofluoromethane	109	65.4-122		%REC	1	1/12/2010 9:01:34 PM
Surr: Toluene-d8	88.6	81.1-112		%REC	1	1/12/2010 9:01:34 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-06

Client Sample ID: API-W-6
 Collection Date: 1/6/2010 11:35:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	14	10		mg/Kg	1	1/12/2010 12:04:39 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/12/2010 12:04:39 PM
Surr: DNOP	99.1	61.7-135		%REC	1	1/12/2010 12:04:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/13/2010 2:31:49 PM
Surr: BFB	100	65.9-118		%REC	1	1/13/2010 2:31:49 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.035	0.033		mg/Kg	1	1/12/2010 3:41:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:35:42 PM
Barium	450	1.0		mg/Kg	10	1/11/2010 3:16:27 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:35:42 PM
Chromium	3.4	1.5		mg/Kg	5	1/11/2010 1:35:42 PM
Lead	ND	1.3		mg/Kg	5	1/11/2010 1:35:42 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:35:42 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:35:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 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

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CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-06

Client Sample ID: API-W-6
 Collection Date: 1/6/2010 11:35:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 5:10:29 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 5:10:29 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 5:10:29 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 5:10:29 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 5:10:29 PM
Phenanthrene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 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

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-06

Client Sample ID: API-W-6
 Collection Date: 1/6/2010 11:35:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 5:10:29 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:10:29 PM
Surr: 2,4,6-Tribromophenol	79.5	35.5-141		%REC	1	1/12/2010 5:10:29 PM
Surr: 2-Fluorobiphenyl	66.6	30.4-128		%REC	1	1/12/2010 5:10:29 PM
Surr: 2-Fluorophenol	67.8	28.1-129		%REC	1	1/12/2010 5:10:29 PM
Surr: 4-Terphenyl-d14	43.5	34.6-151		%REC	1	1/12/2010 5:10:29 PM
Surr: Nitrobenzene-d5	58.6	26.5-122		%REC	1	1/12/2010 5:10:29 PM
Surr: Phenol-d5	62.4	37.6-118		%REC	1	1/12/2010 5:10:29 PM

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Toluene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Naphthalene	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2010 5:46:49 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2010 5:46:49 PM
Acetone	ND	0.75		mg/Kg	1	1/11/2010 5:46:49 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Bromoform	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Bromomethane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
2-Butanone	ND	0.50		mg/Kg	1	1/11/2010 5:46:49 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/11/2010 5:46:49 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Chloroethane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
Chloroform	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Chloromethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: API-W-6

Lab Order: 1001093

Collection Date: 1/6/2010 11:35:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/11/2010 5:46:49 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/11/2010 5:46:49 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/11/2010 5:46:49 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Styrene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/11/2010 5:46:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/11/2010 5:46:49 PM
Surr: 1,2-Dichloroethane-d4	100	59.5-119		%REC	1	1/11/2010 5:46:49 PM
Surr: 4-Bromofluorobenzene	89.9	57.9-141		%REC	1	1/11/2010 5:46:49 PM
Surr: Dibromofluoromethane	109	65.4-122		%REC	1	1/11/2010 5:46:49 PM
Surr: Toluene-d8	92.6	81.1-112		%REC	1	1/11/2010 5:46:49 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

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CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-07

Client Sample ID: BKT-E-7
 Collection Date: 1/6/2010 11:50:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	31	10		mg/Kg	1	1/13/2010 6:05:11 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/13/2010 6:05:11 AM
Surr: DNOP	101	61.7-135		%REC	1	1/13/2010 6:05:11 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	26	5.0		mg/Kg	1	1/13/2010 3:00:37 PM
Surr: BFB	174	65.9-118	S	%REC	1	1/13/2010 3:00:37 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.071	0.033		mg/Kg	1	1/12/2010 3:46:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:39:54 PM
Barium	500	2.0		mg/Kg	20	1/11/2010 3:43:35 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:39:54 PM
Chromium	8.7	1.5		mg/Kg	5	1/11/2010 1:39:54 PM
Lead	5.6	1.3		mg/Kg	5	1/11/2010 1:39:54 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:39:54 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:39:54 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-07

Client Sample ID: BKT-E-7
 Collection Date: 1/6/2010 11:50:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 5:39:41 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 5:39:41 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 5:39:41 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 5:39:41 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 5:39:41 PM
Phenanthrene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-07

Client Sample ID: BKT-E-7
 Collection Date: 1/6/2010 11:50:00 AM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 5:39:41 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 5:39:41 PM
Surr: 2,4,6-Tribromophenol	81.2	35.5-141		%REC	1	1/12/2010 5:39:41 PM
Surr: 2-Fluorobiphenyl	64.7	30.4-128		%REC	1	1/12/2010 5:39:41 PM
Surr: 2-Fluorophenol	72.9	28.1-129		%REC	1	1/12/2010 5:39:41 PM
Surr: 4-Terphenyl-d14	47.4	34.6-151		%REC	1	1/12/2010 5:39:41 PM
Surr: Nitrobenzene-d5	72.1	26.5-122		%REC	1	1/12/2010 5:39:41 PM
Surr: Phenol-d5	77.8	37.6-118		%REC	1	1/12/2010 5:39:41 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	0.15	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Toluene	0.82	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Ethylbenzene	0.28	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2,4-Trimethylbenzene	0.80	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,3,5-Trimethylbenzene	0.31	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Naphthalene	0.24	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
1-Methylnaphthalene	0.38	0.20		mg/Kg	1	1/12/2010 9:57:39 PM
2-Methylnaphthalene	0.71	0.20		mg/Kg	1	1/12/2010 9:57:39 PM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 9:57:39 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 9:57:39 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 9:57:39 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-E-7

Lab Order: 1001093

Collection Date: 1/6/2010 11:50:00 AM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 9:57:39 PM
Isopropylbenzene	0.082	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 9:57:39 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 9:57:39 PM
n-Butylbenzene	0.13	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
n-Propylbenzene	0.12	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 9:57:39 PM
Xylenes, Total	2.0	0.10		mg/Kg	1	1/12/2010 9:57:39 PM
Surr: 1,2-Dichloroethane-d4	98.2	59.5-119		%REC	1	1/12/2010 9:57:39 PM
Surr: 4-Bromofluorobenzene	103	57.9-141		%REC	1	1/12/2010 9:57:39 PM
Surr: Dibromofluoromethane	110	65.4-122		%REC	1	1/12/2010 9:57:39 PM
Surr: Toluene-d8	88.7	81.1-112		%REC	1	1/12/2010 9:57:39 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-08

Client Sample ID: BKT-S-8
 Collection Date: 1/6/2010 12:05:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1100	100		mg/Kg	10	1/13/2010 6:41:16 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	1/13/2010 6:41:16 AM
Surr: DNOP	95.7	61.7-135		%REC	10	1/13/2010 6:41:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	390	50		mg/Kg	10	1/13/2010 3:29:27 PM
Surr: BFB	185	65.9-118	S	%REC	10	1/13/2010 3:29:27 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:48:35 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:44:01 PM
Barium	360	1.0		mg/Kg	10	1/11/2010 3:20:31 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:44:01 PM
Chromium	7.6	1.5		mg/Kg	5	1/11/2010 1:44:01 PM
Lead	5.8	1.3		mg/Kg	5	1/11/2010 1:44:01 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:44:01 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:44:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-08

Client Sample ID: BKT-S-8
 Collection Date: 1/6/2010 12:05:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 6:09:04 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 6:09:04 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 6:09:04 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 6:09:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 6:09:04 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 6:09:04 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 6:09:04 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
2-Methylnaphthalene	8.7	1.3		mg/Kg	5	1/13/2010 2:55:36 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Naphthalene	2.5	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 6:09:04 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 6:09:04 PM
Phenanthrene	2.0	0.20		mg/Kg	1	1/12/2010 6:09:04 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-08

Client Sample ID: BKT-S-8
 Collection Date: 1/6/2010 12:05:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Pyrene	0.23	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 6:09:04 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:09:04 PM
Surr: 2,4,6-Tribromophenol	57.4	35.5-141		%REC	5	1/13/2010 2:55:36 PM
Surr: 2-Fluorobiphenyl	62.7	30.4-128		%REC	1	1/12/2010 6:09:04 PM
Surr: 2-Fluorophenol	47.6	28.1-129		%REC	1	1/12/2010 6:09:04 PM
Surr: 4-Terphenyl-d14	53.6	34.6-151		%REC	1	1/12/2010 6:09:04 PM
Surr: Nitrobenzene-d5	48.3	26.5-122		%REC	1	1/12/2010 6:09:04 PM
Surr: Phenol-d5	58.1	37.6-118		%REC	1	1/12/2010 6:09:04 PM

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	0.91	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Toluene	14	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Ethylbenzene	5.1	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Methyl tert-butyl ether (MTBE)	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2,4-Trimethylbenzene	22	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,3,5-Trimethylbenzene	7.9	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2-Dichloroethane (EDC)	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2-Dibromoethane (EDB)	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Naphthalene	10	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
1-Methylnaphthalene	17	1.0		mg/Kg	5	1/12/2010 10:54:12 PM
2-Methylnaphthalene	34	10		mg/Kg	50	1/11/2010 9:31:51 PM
Acetone	ND	3.8		mg/Kg	5	1/12/2010 10:54:12 PM
Bromobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Bromodichloromethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Bromoform	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Bromomethane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
2-Butanone	ND	2.5		mg/Kg	5	1/12/2010 10:54:12 PM
Carbon disulfide	ND	2.5		mg/Kg	5	1/12/2010 10:54:12 PM
Carbon tetrachloride	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
Chlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Chloroethane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
Chloroform	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Chloromethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
2-Chlorotoluene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
4-Chlorotoluene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
cis-1,2-DCE	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
cis-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2-Dibromo-3-chloropropane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-08

Client Sample ID: BKT-S-8
 Collection Date: 1/6/2010 12:05:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Dibromomethane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
1,2-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,3-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,4-Dichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Dichlorodifluoromethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,1-Dichloroethane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
1,1-Dichloroethene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2-Dichloropropane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,3-Dichloropropane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
2,2-Dichloropropane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
1,1-Dichloropropene	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
Hexachlorobutadiene	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
2-Hexanone	ND	2.5		mg/Kg	5	1/12/2010 10:54:12 PM
Isopropylbenzene	1.4	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
4-Isopropyltoluene	0.88	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
4-Methyl-2-pentanone	ND	2.5		mg/Kg	5	1/12/2010 10:54:12 PM
Methylene chloride	ND	0.75		mg/Kg	5	1/12/2010 10:54:12 PM
n-Butylbenzene	3.5	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
n-Propylbenzene	3.0	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
sec-Butylbenzene	1.2	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Styrene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
tert-Butylbenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,1,1,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,1,2,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Tetrachloroethene (PCE)	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
trans-1,2-DCE	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
trans-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2,3-Trichlorobenzene	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
1,2,4-Trichlorobenzene	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,1,1-Trichloroethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,1,2-Trichloroethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Trichloroethene (TCE)	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Trichlorofluoromethane	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
1,2,3-Trichloropropane	ND	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
Vinyl chloride	ND	0.25		mg/Kg	5	1/12/2010 10:54:12 PM
Xylenes, Total	36	0.50		mg/Kg	5	1/12/2010 10:54:12 PM
Surr: 1,2-Dichloroethane-d4	102	59.5-119		%REC	5	1/12/2010 10:54:12 PM
Surr: 4-Bromofluorobenzene	135	57.9-141		%REC	5	1/12/2010 10:54:12 PM
Surr: Dibromofluoromethane	112	65.4-122		%REC	5	1/12/2010 10:54:12 PM
Surr: Toluene-d8	90.0	81.1-112		%REC	5	1/12/2010 10:54:12 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1001093
Project: API Overflow Sample Points
Lab ID: 1001093-09

Client Sample ID: BKT-W-9
Collection Date: 1/6/2010 12:20:00 PM
Date Received: 1/8/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	560	10		mg/Kg	1	1/13/2010 7:17:15 AM
Motor Oil Range Organics (MRO)	56	50		mg/Kg	1	1/13/2010 7:17:15 AM
Surr: DNOP	97.5	61.7-135		%REC	1	1/13/2010 7:17:15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	2300	250		mg/Kg	50	1/13/2010 3:58:13 PM
Surr: BFB	156	65.9-118	S	%REC	50	1/13/2010 3:58:13 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:50:25 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 1:55:06 PM
Barium	640	2.0		mg/Kg	20	1/11/2010 3:22:34 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 1:55:06 PM
Chromium	9.0	1.5		mg/Kg	5	1/11/2010 1:55:06 PM
Lead	6.8	1.3		mg/Kg	5	1/11/2010 1:55:06 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 1:55:06 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 1:55:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 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

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CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-09

Client Sample ID: BKT-W-9
 Collection Date: 1/6/2010 12:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 6:37:59 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 6:37:59 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 6:37:59 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
2-Methylnaphthalene	3.5	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Naphthalene	1.5	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 6:37:59 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 6:37:59 PM
Phenanthrene	0.60	0.20		mg/Kg	1	1/12/2010 6:37:59 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

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-09

Client Sample ID: BKT-W-9
 Collection Date: 1/6/2010 12:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	0.36	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 6:37:59 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 6:37:59 PM
Surr: 2,4,6-Tribromophenol	68.5	35.5-141		%REC	1	1/12/2010 6:37:59 PM
Surr: 2-Fluorobiphenyl	77.8	30.4-128		%REC	1	1/12/2010 6:37:59 PM
Surr: 2-Fluorophenol	54.5	28.1-129		%REC	1	1/12/2010 6:37:59 PM
Surr: 4-Terphenyl-d14	58.4	34.6-151		%REC	1	1/12/2010 6:37:59 PM
Surr: Nitrobenzene-d5	70.3	26.5-122		%REC	1	1/12/2010 6:37:59 PM
Surr: Phenol-d5	73.9	37.6-118		%REC	1	1/12/2010 6:37:59 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	6.9	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Toluene	110	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Ethylbenzene	28	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2,4-Trimethylbenzene	53	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,3,5-Trimethylbenzene	20	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Naphthalene	13	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
1-Methylnaphthalene	14	10		mg/Kg	50	1/11/2010 9:59:49 PM
2-Methylnaphthalene	27	10		mg/Kg	50	1/11/2010 9:59:49 PM
Acetone	ND	38		mg/Kg	50	1/11/2010 9:59:49 PM
Bromobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Bromodichloromethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Bromoform	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Bromomethane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
2-Butanone	ND	25		mg/Kg	50	1/11/2010 9:59:49 PM
Carbon disulfide	ND	25		mg/Kg	50	1/11/2010 9:59:49 PM
Carbon tetrachloride	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
Chlorobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Chloroethane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
Chloroform	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Chloromethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
2-Chlorotoluene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
4-Chlorotoluene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
cis-1,2-DCE	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-09

Client Sample ID: BKT-W-9
 Collection Date: 1/6/2010 12:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAW
Dibromochloromethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Dibromomethane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
2-Hexanone	ND	25		mg/Kg	50	1/11/2010 9:59:49 PM
Isopropylbenzene	5.4	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	1/11/2010 9:59:49 PM
Methylene chloride	ND	7.5		mg/Kg	50	1/11/2010 9:59:49 PM
n-Butylbenzene	6.2	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
n-Propylbenzene	10	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
sec-Butylbenzene	2.6	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Styrene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
tert-Butylbenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
trans-1,2-DCE	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
Vinyl chloride	ND	2.5		mg/Kg	50	1/11/2010 9:59:49 PM
Xylenes, Total	180	5.0		mg/Kg	50	1/11/2010 9:59:49 PM
Surr: 1,2-Dichloroethane-d4	102	59.5-119		%REC	50	1/11/2010 9:59:49 PM
Surr: 4-Bromofluorobenzene	100	57.9-141		%REC	50	1/11/2010 9:59:49 PM
Surr: Dibromofluoromethane	111	65.4-122		%REC	50	1/11/2010 9:59:49 PM
Surr: Toluene-d8	95.4	81.1-112		%REC	50	1/11/2010 9:59:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-10

Client Sample ID: CHN-C-10
 Collection Date: 1/6/2010 1:30:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	88	10		mg/Kg	1	1/13/2010 1:21:02 PM
Motor Oil Range Organics (MRO)	72	50		mg/Kg	1	1/13/2010 1:21:02 PM
Surr: DNOP	116	61.7-135		%REC	1	1/13/2010 1:21:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	1/13/2010 4:27:05 PM
Surr: BFB	106	65.9-118		%REC	2	1/13/2010 4:27:05 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:52:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 2:03:30 PM
Barium	350	1.0		mg/Kg	10	1/11/2010 3:24:37 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 2:03:30 PM
Chromium	9.1	1.5		mg/Kg	5	1/11/2010 2:03:30 PM
Lead	7.2	1.3		mg/Kg	5	1/11/2010 2:03:30 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 2:03:30 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 2:03:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Acenaphthylene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Aniline	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Azobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Benzoic acid	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Carbazole	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 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

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-10

Client Sample ID: CHN-C-10
 Collection Date: 1/6/2010 1:30:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Chrysene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Dibenzofuran	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	1/12/2010 7:06:49 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	1/12/2010 7:06:49 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	1/12/2010 7:06:49 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
Fluoranthene	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
Fluorene	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Hexachloroethane	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
Isophorone	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
2-Methylnaphthalene	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
2-Methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Naphthalene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
4-Nitroaniline	ND	0.50		mg/Kg	1	1/12/2010 7:06:49 PM
Nitrobenzene	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
4-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	1/12/2010 7:06:49 PM
Phenanthrene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: CHN-C-10

Lab Order: 1001093

Collection Date: 1/6/2010 1:30:00 PM

Project: API Overflow Sample Points

Date Received: 1/8/2010

Lab ID: 1001093-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Pyrene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Pyridine	ND	1.0		mg/Kg	1	1/12/2010 7:06:49 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:06:49 PM
Surr: 2,4,6-Tribromophenol	44.9	35.5-141		%REC	1	1/12/2010 7:06:49 PM
Surr: 2-Fluorobiphenyl	36.5	30.4-128		%REC	1	1/12/2010 7:06:49 PM
Surr: 2-Fluorophenol	32.9	28.1-129		%REC	1	1/12/2010 7:06:49 PM
Surr: 4-Terphenyl-d14	28.8	34.6-151	S	%REC	1	1/12/2010 7:06:49 PM
Surr: Nitrobenzene-d5	39.4	26.5-122		%REC	1	1/12/2010 7:06:49 PM
Surr: Phenol-d5	39.5	37.6-118		%REC	1	1/12/2010 7:06:49 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Toluene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Ethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Naphthalene	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2010 10:28:04 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/11/2010 10:28:04 PM
Acetone	ND	0.75		mg/Kg	1	1/11/2010 10:28:04 PM
Bromobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Bromoform	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Bromomethane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
2-Butanone	ND	0.50		mg/Kg	1	1/11/2010 10:28:04 PM
Carbon disulfide	ND	0.50		mg/Kg	1	1/11/2010 10:28:04 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
Chlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Chloroethane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
Chloroform	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Chloromethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 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

Page 39 of 56

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-10

Client Sample ID: CHN-C-10
 Collection Date: 1/6/2010 1:30:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Dibromomethane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
2-Hexanone	ND	0.50		mg/Kg	1	1/11/2010 10:28:04 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/11/2010 10:28:04 PM
Methylene chloride	ND	0.15		mg/Kg	1	1/11/2010 10:28:04 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Styrene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
Vinyl chloride	ND	0.050		mg/Kg	1	1/11/2010 10:28:04 PM
Xylenes, Total	ND	0.10		mg/Kg	1	1/11/2010 10:28:04 PM
Surr: 1,2-Dichloroethane-d4	94.3	59.5-119		%REC	1	1/11/2010 10:28:04 PM
Surr: 4-Bromofluorobenzene	94.0	57.9-141		%REC	1	1/11/2010 10:28:04 PM
Surr: Dibromofluoromethane	109	65.4-122		%REC	1	1/11/2010 10:28:04 PM
Surr: Toluene-d8	90.3	81.1-112		%REC	1	1/11/2010 10:28:04 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

Page 40 of 56

Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-11

Client Sample ID: CHN-C-11
 Collection Date: 1/6/2010 1:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	120	10		mg/Kg	1	1/13/2010 1:58:03 PM
Motor Oil Range Organics (MRO)	100	50		mg/Kg	1	1/13/2010 1:58:03 PM
Surr: DNOP	121	61.7-135		%REC	1	1/13/2010 1:58:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	1/13/2010 4:55:53 PM
Surr: BFB	104	65.9-118		%REC	2	1/13/2010 4:55:53 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.077	0.033		mg/Kg	1	1/12/2010 3:54:06 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 2:36:22 PM
Barium	380	1.0		mg/Kg	10	1/11/2010 3:26:43 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 2:36:22 PM
Chromium	11	1.5		mg/Kg	5	1/11/2010 2:36:22 PM
Lead	5.8	1.3		mg/Kg	5	1/11/2010 2:36:22 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 2:36:22 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 2:36:22 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Acenaphthylene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Aniline	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Azobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Benzo(a)anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Benzoic acid	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Carbazole	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-11

Client Sample ID: CHN-C-11
 Collection Date: 1/6/2010 1:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Chrysene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Dibenzofuran	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	1/12/2010 7:35:40 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	1/12/2010 7:35:40 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	1/12/2010 7:35:40 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
Fluoranthene	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
Fluorene	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Hexachloroethane	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Indeno(1,2,3-cd)pyrene	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
Isophorone	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
2-Methylnaphthalene	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
2-Methylphenol	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Naphthalene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
4-Nitroaniline	ND	0.50		mg/Kg	1	1/12/2010 7:35:40 PM
Nitrobenzene	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
4-Nitrophenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	1/12/2010 7:35:40 PM
Phenanthrene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-11

Client Sample ID: CHN-C-11
 Collection Date: 1/6/2010 1:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Pyrene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Pyridine	ND	1.0		mg/Kg	1	1/12/2010 7:35:40 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 7:35:40 PM
Surr: 2,4,6-Tribromophenol	53.9	35.5-141		%REC	1	1/12/2010 7:35:40 PM
Surr: 2-Fluorobiphenyl	45.7	30.4-128		%REC	1	1/12/2010 7:35:40 PM
Surr: 2-Fluorophenol	49.1	28.1-129		%REC	1	1/12/2010 7:35:40 PM
Surr: 4-Terphenyl-d14	42.9	34.6-151		%REC	1	1/12/2010 7:35:40 PM
Surr: Nitrobenzene-d5	45.1	26.5-122		%REC	1	1/12/2010 7:35:40 PM
Surr: Phenol-d5	50.9	37.6-118		%REC	1	1/12/2010 7:35:40 PM

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Toluene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2,4-Trimethylbenzene	0.13	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,3,5-Trimethylbenzene	0.059	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Naphthalene	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/14/2010 4:24:05 AM
2-Methylnaphthalene	0.23	0.20		mg/Kg	1	1/14/2010 4:24:05 AM
Acetone	ND	0.75		mg/Kg	1	1/14/2010 4:24:05 AM
Bromobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Bromoform	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Bromomethane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
2-Butanone	ND	0.50		mg/Kg	1	1/14/2010 4:24:05 AM
Carbon disulfide	ND	0.50		mg/Kg	1	1/14/2010 4:24:05 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
Chlorobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Chloroethane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
Chloroform	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Chloromethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-11

Client Sample ID: CHN-C-11
 Collection Date: 1/6/2010 1:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Dibromomethane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
2-Hexanone	ND	0.50		mg/Kg	1	1/14/2010 4:24:05 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/14/2010 4:24:05 AM
Methylene chloride	ND	0.15		mg/Kg	1	1/14/2010 4:24:05 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Styrene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
Vinyl chloride	ND	0.050		mg/Kg	1	1/14/2010 4:24:05 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/14/2010 4:24:05 AM
Surr: 1,2-Dichloroethane-d4	98.2	59.5-119		%REC	1	1/14/2010 4:24:05 AM
Surr: 4-Bromofluorobenzene	94.9	57.9-141		%REC	1	1/14/2010 4:24:05 AM
Surr: Dibromofluoromethane	108	65.4-122		%REC	1	1/14/2010 4:24:05 AM
Surr: Toluene-d8	91.7	81.1-112		%REC	1	1/14/2010 4:24:05 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-12

Client Sample ID: NBT-W-12
 Collection Date: 1/6/2010 2:00:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	32	10		mg/Kg	1	1/13/2010 2:34:48 PM
Motor Oil Range Organics (MRO)	78	50		mg/Kg	1	1/13/2010 2:34:48 PM
Surr: DNOP	118	61.7-135		%REC	1	1/13/2010 2:34:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/13/2010 5:24:36 PM
Surr: BFB	101	65.9-118		%REC	1	1/13/2010 5:24:36 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.068	0.033		mg/Kg	1	1/12/2010 3:55:57 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 2:40:38 PM
Barium	350	1.0		mg/Kg	10	1/11/2010 3:28:46 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 2:40:38 PM
Chromium	9.1	1.5		mg/Kg	5	1/11/2010 2:40:38 PM
Lead	7.7	1.3		mg/Kg	5	1/11/2010 2:40:38 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 2:40:38 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 2:40:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-12

Client Sample ID: NBT-W-12
 Collection Date: 1/6/2010 2:00:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 8:04:24 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 8:04:24 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 8:04:24 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 8:04:24 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 8:04:24 PM
Phenanthrene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-12

Client Sample ID: NBT-W-12
 Collection Date: 1/6/2010 2:00:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 8:04:24 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:04:24 PM
Surr: 2,4,6-Tribromophenol	99.8	35.5-141		%REC	1	1/12/2010 8:04:24 PM
Surr: 2-Fluorobiphenyl	71.5	30.4-128		%REC	1	1/12/2010 8:04:24 PM
Surr: 2-Fluorophenol	59.3	28.1-129		%REC	1	1/12/2010 8:04:24 PM
Surr: 4-Terphenyl-d14	44.7	34.6-151		%REC	1	1/12/2010 8:04:24 PM
Surr: Nitrobenzene-d5	77.1	26.5-122		%REC	1	1/12/2010 8:04:24 PM
Surr: Phenol-d5	76.2	37.6-118		%REC	1	1/12/2010 8:04:24 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Toluene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Naphthalene	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/13/2010 12:18:36 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/13/2010 12:18:36 AM
Acetone	ND	0.75		mg/Kg	1	1/13/2010 12:18:36 AM
Bromobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Bromoform	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Bromomethane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
2-Butanone	ND	0.50		mg/Kg	1	1/13/2010 12:18:36 AM
Carbon disulfide	ND	0.50		mg/Kg	1	1/13/2010 12:18:36 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
Chlorobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Chloroethane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
Chloroform	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Chloromethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-12

Client Sample ID: NBT-W-12
 Collection Date: 1/6/2010 2:00:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Dibromomethane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
2-Hexanone	ND	0.50		mg/Kg	1	1/13/2010 12:18:36 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/13/2010 12:18:36 AM
Methylene chloride	ND	0.15		mg/Kg	1	1/13/2010 12:18:36 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Styrene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
Vinyl chloride	ND	0.050		mg/Kg	1	1/13/2010 12:18:36 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/13/2010 12:18:36 AM
Surr: 1,2-Dichloroethane-d4	97.5	59.5-119		%REC	1	1/13/2010 12:18:36 AM
Surr: 4-Bromofluorobenzene	89.4	57.9-141		%REC	1	1/13/2010 12:18:36 AM
Surr: Dibromofluoromethane	109	65.4-122		%REC	1	1/13/2010 12:18:36 AM
Surr: Toluene-d8	94.9	81.1-112		%REC	1	1/13/2010 12:18:36 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-13

Client Sample ID: NBT-N-13
 Collection Date: 1/6/2010 2:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	390	10		mg/Kg	1	1/13/2010 3:11:19 PM
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	1/13/2010 3:11:19 PM
Surr: DNOP	105	61.7-135		%REC	1	1/13/2010 3:11:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	210	50		mg/Kg	10	1/13/2010 5:53:18 PM
Surr: BFB	172	65.9-118	S	%REC	10	1/13/2010 5:53:18 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	0.067	0.033		mg/Kg	1	1/12/2010 3:57:40 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 2:51:26 PM
Barium	350	1.0		mg/Kg	10	1/11/2010 3:30:49 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 2:51:26 PM
Chromium	7.3	1.5		mg/Kg	5	1/11/2010 2:51:26 PM
Lead	6.5	1.3		mg/Kg	5	1/11/2010 2:51:26 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 2:51:26 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 2:51:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
Lab Order: 1001093
Project: API Overflow Sample Points
Lab ID: 1001093-13

Client Sample ID: NBT-N-13
Collection Date: 1/6/2010 2:20:00 PM
Date Received: 1/8/2010
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 8:33:01 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 8:33:01 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 8:33:01 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
2-Methylnaphthalene	0.89	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Naphthalene	0.24	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 8:33:01 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 8:33:01 PM
Phenanthrene	0.65	0.20		mg/Kg	1	1/12/2010 8:33:01 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

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-13

Client Sample ID: NBT-N-13
 Collection Date: 1/6/2010 2:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 8:33:01 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 8:33:01 PM
Surr: 2,4,6-Tribromophenol	52.8	35.5-141		%REC	1	1/12/2010 8:33:01 PM
Surr: 2-Fluorobiphenyl	51.8	30.4-128		%REC	1	1/12/2010 8:33:01 PM
Surr: 2-Fluorophenol	42.1	28.1-129		%REC	1	1/12/2010 8:33:01 PM
Surr: 4-Terphenyl-d14	36.9	34.6-151		%REC	1	1/12/2010 8:33:01 PM
Surr: Nitrobenzene-d5	63.8	26.5-122		%REC	1	1/12/2010 8:33:01 PM
Surr: Phenol-d5	60.2	37.6-118		%REC	1	1/12/2010 8:33:01 PM

EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	0.25	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Toluene	5.8	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Ethylbenzene	2.6	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Methyl tert-butyl ether (MTBE)	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2,4-Trimethylbenzene	7.5	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,3,5-Trimethylbenzene	3.4	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2-Dichloroethane (EDC)	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2-Dibromoethane (EDB)	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Naphthalene	0.81	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
1-Methylnaphthalene	2.4	1.0		mg/Kg	5	1/13/2010 12:46:49 AM
2-Methylnaphthalene	3.0	1.0		mg/Kg	5	1/13/2010 12:46:49 AM
Acetone	ND	3.8		mg/Kg	5	1/13/2010 12:46:49 AM
Bromobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Bromodichloromethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Bromoform	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Bromomethane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
2-Butanone	ND	2.5		mg/Kg	5	1/13/2010 12:46:49 AM
Carbon disulfide	ND	2.5		mg/Kg	5	1/13/2010 12:46:49 AM
Carbon tetrachloride	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
Chlorobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Chloroethane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
Chloroform	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Chloromethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
2-Chlorotoluene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
4-Chlorotoluene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
cis-1,2-DCE	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
cis-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2-Dibromo-3-chloropropane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-13

Client Sample ID: NBT-N-13
 Collection Date: 1/6/2010 2:20:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Dibromomethane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
1,2-Dichlorobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,3-Dichlorobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,4-Dichlorobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Dichlorodifluoromethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,1-Dichloroethane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
1,1-Dichloroethene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2-Dichloropropane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,3-Dichloropropane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
2,2-Dichloropropane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
1,1-Dichloropropene	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
Hexachlorobutadiene	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
2-Hexanone	ND	2.5		mg/Kg	5	1/13/2010 12:46:49 AM
Isopropylbenzene	0.69	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
4-Isopropyltoluene	0.32	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
4-Methyl-2-pentanone	ND	2.5		mg/Kg	5	1/13/2010 12:46:49 AM
Methylene chloride	ND	0.75		mg/Kg	5	1/13/2010 12:46:49 AM
n-Butylbenzene	1.0	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
n-Propylbenzene	1.3	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
sec-Butylbenzene	0.44	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Styrene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
tert-Butylbenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,1,1,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,1,2,2-Tetrachloroethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Tetrachloroethene (PCE)	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
trans-1,2-DCE	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
trans-1,3-Dichloropropene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2,3-Trichlorobenzene	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
1,2,4-Trichlorobenzene	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,1,1-Trichloroethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,1,2-Trichloroethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Trichloroethene (TCE)	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Trichlorofluoromethane	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
1,2,3-Trichloropropane	ND	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
Vinyl chloride	ND	0.25		mg/Kg	5	1/13/2010 12:46:49 AM
Xylenes, Total	19	0.50		mg/Kg	5	1/13/2010 12:46:49 AM
Surr: 1,2-Dichloroethane-d4	103	59.5-119		%REC	5	1/13/2010 12:46:49 AM
Surr: 4-Bromofluorobenzene	113	57.9-141		%REC	5	1/13/2010 12:46:49 AM
Surr: Dibromofluoromethane	113	65.4-122		%REC	5	1/13/2010 12:46:49 AM
Surr: Toluene-d8	87.5	81.1-112		%REC	5	1/13/2010 12:46:49 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-14

Client Sample ID: NBT-E-14
 Collection Date: 1/6/2010 2:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	1/12/2010 3:06:05 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	1/12/2010 3:06:05 PM
Surr: DNOP	99.4	61.7-135		%REC	1	1/12/2010 3:06:05 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	1/13/2010 6:22:08 PM
Surr: BFB	106	65.9-118		%REC	1	1/13/2010 6:22:08 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	ND	0.033		mg/Kg	1	1/12/2010 3:59:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: SNV
Arsenic	ND	13		mg/Kg	5	1/11/2010 2:55:36 PM
Barium	310	1.0		mg/Kg	10	1/11/2010 3:32:53 PM
Cadmium	ND	0.50		mg/Kg	5	1/11/2010 2:55:36 PM
Chromium	5.0	1.5		mg/Kg	5	1/11/2010 2:55:36 PM
Lead	6.2	1.3		mg/Kg	5	1/11/2010 2:55:36 PM
Selenium	ND	13		mg/Kg	5	1/11/2010 2:55:36 PM
Silver	ND	1.3		mg/Kg	5	1/11/2010 2:55:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Acenaphthene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Acenaphthylene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Aniline	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Anthracene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Azobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Benzo(g,h,i)perylene	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Benzoic acid	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Carbazole	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-14

Client Sample ID: NBT-E-14
 Collection Date: 1/6/2010 2:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
2-Chloronaphthalene	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Chrysene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
Di-n-octyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Dibenzofuran	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	1/12/2010 9:01:37 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	1/12/2010 9:01:37 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	1/12/2010 9:01:37 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
Fluoranthene	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
Fluorene	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Hexachloroethane	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Indeno(1,2,3-cd)pyrene	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
Isophorone	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
2-Methylnaphthalene	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
2-Methylphenol	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Naphthalene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
4-Nitroaniline	ND	0.25		mg/Kg	1	1/12/2010 9:01:37 PM
Nitrobenzene	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
4-Nitrophenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	1/12/2010 9:01:37 PM
Phenanthrene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-14

Client Sample ID: NBT-E-14
 Collection Date: 1/6/2010 2:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: LBJ
Phenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Pyrene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Pyridine	ND	0.50		mg/Kg	1	1/12/2010 9:01:37 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	1/12/2010 9:01:37 PM
Surr: 2,4,6-Tribromophenol	89.6	35.5-141		%REC	1	1/12/2010 9:01:37 PM
Surr: 2-Fluorobiphenyl	71.4	30.4-128		%REC	1	1/12/2010 9:01:37 PM
Surr: 2-Fluorophenol	60.4	28.1-129		%REC	1	1/12/2010 9:01:37 PM
Surr: 4-Terphenyl-d14	65.0	34.6-151		%REC	1	1/12/2010 9:01:37 PM
Surr: Nitrobenzene-d5	67.2	26.5-122		%REC	1	1/12/2010 9:01:37 PM
Surr: Phenol-d5	67.4	37.6-118		%REC	1	1/12/2010 9:01:37 PM
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Toluene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Ethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Naphthalene	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	1/12/2010 12:20:53 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	1/12/2010 12:20:53 AM
Acetone	ND	0.75		mg/Kg	1	1/12/2010 12:20:53 AM
Bromobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Bromoform	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Bromomethane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
2-Butanone	ND	0.50		mg/Kg	1	1/12/2010 12:20:53 AM
Carbon disulfide	ND	0.50		mg/Kg	1	1/12/2010 12:20:53 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
Chlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Chloroethane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
Chloroform	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Chloromethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 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: 15-Jan-10

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 1001093
 Project: API Overflow Sample Points
 Lab ID: 1001093-14

Client Sample ID: NBT-E-14
 Collection Date: 1/6/2010 2:45:00 PM
 Date Received: 1/8/2010
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Dibromochloromethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Dibromomethane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
2-Hexanone	ND	0.50		mg/Kg	1	1/12/2010 12:20:53 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	1/12/2010 12:20:53 AM
Methylene chloride	ND	0.15		mg/Kg	1	1/12/2010 12:20:53 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Styrene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
Vinyl chloride	ND	0.050		mg/Kg	1	1/12/2010 12:20:53 AM
Xylenes, Total	ND	0.10		mg/Kg	1	1/12/2010 12:20:53 AM
Surr: 1,2-Dichloroethane-d4	97.5	59.5-119		%REC	1	1/12/2010 12:20:53 AM
Surr: 4-Bromofluorobenzene	88.5	57.9-141		%REC	1	1/12/2010 12:20:53 AM
Surr: Dibromofluoromethane	111	65.4-122		%REC	1	1/12/2010 12:20:53 AM
Surr: Toluene-d8	92.2	81.1-112		%REC	1	1/12/2010 12:20:53 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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: API Overflow Sample Points

Work Order: 1001093

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

Sample ID: MB-21091 **MBLK** **Batch ID:** 21091 **Analysis Date:** 1/12/2010 6:18:37 AM

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

Sample ID: LCS-21091 **LCS** **Batch ID:** 21091 **Analysis Date:** 1/12/2010 6:55:05 AM

Diesel Range Organics (DRO) 47.00 mg/Kg 10 50 0 94.0 64.6 116

Sample ID: LCSD-21091 **LCSD** **Batch ID:** 21091 **Analysis Date:** 1/12/2010 7:31:21 AM

Diesel Range Organics (DRO) 40.86 mg/Kg 10 50 0 81.7 64.6 116 14.0 17.4

Method: EPA Method 8015B: Gasoline Range

Sample ID: 1001093-14A MSD **MSD** **Batch ID:** 21087 **Analysis Date:** 1/13/2010 7:19:45 PM

Gasoline Range Organics (GRO) 23.53 mg/Kg 5.0 25 1.65 87.5 69.5 120 6.14 11.6

Sample ID: MB-21087 **MBLK** **Batch ID:** 21087 **Analysis Date:** 1/13/2010 8:17:18 PM

Gasoline Range Organics (GRO) ND mg/Kg 5.0

Sample ID: LCS-21087 **LCS** **Batch ID:** 21087 **Analysis Date:** 1/13/2010 7:48:32 PM

Gasoline Range Organics (GRO) 26.11 mg/Kg 5.0 25 0 104 77.7 135

Sample ID: 1001093-14A MS **MS** **Batch ID:** 21087 **Analysis Date:** 1/13/2010 6:50:58 PM

Gasoline Range Organics (GRO) 25.02 mg/Kg 5.0 25 1.65 93.5 69.5 120

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 1001093-14a msd

MSD

Batch ID: 21087 Analysis Date: 1/12/2010 1:17:20 AM

Benzene	0.9231	mg/Kg	0.050	1	0	92.3	82.3	107	4.24	20	
Toluene	0.9387	mg/Kg	0.050	1	0	93.9	79.8	104	1.44	20	
Chlorobenzene	0.9839	mg/Kg	0.050	1	0	98.4	84.8	103	4.38	20	
1,1-Dichloroethene	0.9009	mg/Kg	0.050	1	0	90.1	55.9	129	4.83	20	
Trichloroethene (TCE)	1.074	mg/Kg	0.050	1	0	107	77.5	102	2.69	20	S

Sample ID: mb-21087

MBLK

Batch ID: 21087 Analysis Date: 1/11/2010 7:10:45 PM

Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050								
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050								
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050								
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050								
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050								
Naphthalene	ND	mg/Kg	0.10								
1-Methylnaphthalene	ND	mg/Kg	0.20								
2-Methylnaphthalene	ND	mg/Kg	0.20								
Acetone	ND	mg/Kg	0.75								
Bromobenzene	ND	mg/Kg	0.050								
Bromodichloromethane	ND	mg/Kg	0.050								
Bromoform	ND	mg/Kg	0.050								
Bromomethane	ND	mg/Kg	0.10								
2-Butanone	ND	mg/Kg	0.50								
Carbon disulfide	ND	mg/Kg	0.50								
Carbon tetrachloride	ND	mg/Kg	0.10								
Chlorobenzene	ND	mg/Kg	0.050								
Chloroethane	ND	mg/Kg	0.10								
Chloroform	ND	mg/Kg	0.050								
Chloromethane	ND	mg/Kg	0.050								
2-Chlorotoluene	ND	mg/Kg	0.050								
4-Chlorotoluene	ND	mg/Kg	0.050								
cis-1,2-DCE	ND	mg/Kg	0.050								
cis-1,3-Dichloropropene	ND	mg/Kg	0.050								
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10								
Dibromochloromethane	ND	mg/Kg	0.050								
Dibromomethane	ND	mg/Kg	0.10								
1,2-Dichlorobenzene	ND	mg/Kg	0.050								
1,3-Dichlorobenzene	ND	mg/Kg	0.050								
1,4-Dichlorobenzene	ND	mg/Kg	0.050								
Dichlorodifluoromethane	ND	mg/Kg	0.050								
1,1-Dichloroethane	ND	mg/Kg	0.10								
1,1-Dichloroethene	ND	mg/Kg	0.050								
1,2-Dichloropropane	ND	mg/Kg	0.050								
1,3-Dichloropropane	ND	mg/Kg	0.050								

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-21087

MBLK

Batch ID: 21087 Analysis Date: 1/11/2010 7:10:45 PM

2,2-Dichloropropane	ND	mg/Kg	0.10
1,1-Dichloropropene	ND	mg/Kg	0.10
Hexachlorobutadiene	ND	mg/Kg	0.10
2-Hexanone	ND	mg/Kg	0.50
Isopropylbenzene	ND	mg/Kg	0.050
4-Isopropyltoluene	ND	mg/Kg	0.050
4-Methyl-2-pentanone	ND	mg/Kg	0.50
Methylene chloride	ND	mg/Kg	0.15
n-Butylbenzene	ND	mg/Kg	0.050
n-Propylbenzene	ND	mg/Kg	0.050
sec-Butylbenzene	ND	mg/Kg	0.050
Styrene	ND	mg/Kg	0.050
tert-Butylbenzene	ND	mg/Kg	0.050
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050
Tetrachloroethene (PCE)	ND	mg/Kg	0.050
trans-1,2-DCE	ND	mg/Kg	0.050
trans-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050
1,1,1-Trichloroethane	ND	mg/Kg	0.050
1,1,2-Trichloroethane	ND	mg/Kg	0.050
Trichloroethene (TCE)	ND	mg/Kg	0.050
Trichlorofluoromethane	ND	mg/Kg	0.050
1,2,3-Trichloropropane	ND	mg/Kg	0.10
Vinyl chloride	ND	mg/Kg	0.050
Xylenes, Total	ND	mg/Kg	0.10

Sample ID: lcs-21087

LCS

Batch ID: 21087 Analysis Date: 1/11/2010 6:43:28 PM

Benzene	0.9522	mg/Kg	0.050	1	0	95.2	84.5	114
Toluene	1.001	mg/Kg	0.050	1	0	100	85.4	109
Chlorobenzene	1.000	mg/Kg	0.050	1	0	100	86.8	110
1,1-Dichloroethene	0.9937	mg/Kg	0.050	1	0	99.4	74.4	129
Trichloroethene (TCE)	1.084	mg/Kg	0.050	1	0	108	77.8	114

Sample ID: 1001093-14a ms

MS

Batch ID: 21087 Analysis Date: 1/12/2010 12:49:10 AM

Benzene	0.8848	mg/Kg	0.050	1	0	88.5	82.3	107
Toluene	0.9253	mg/Kg	0.050	1	0	92.5	79.8	104
Chlorobenzene	0.9418	mg/Kg	0.050	1	0	94.2	84.8	103
1,1-Dichloroethene	0.8584	mg/Kg	0.050	1	0	85.8	55.9	129
Trichloroethene (TCE)	1.045	mg/Kg	0.050	1	0	105	77.5	102

S

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-21093

MBLK

Batch ID: 21093 Analysis Date: 1/12/2010 12:17:03 PM

Acenaphthene	ND	mg/Kg	0.20
Acenaphthylene	ND	mg/Kg	0.20
Aniline	ND	mg/Kg	0.20
Anthracene	ND	mg/Kg	0.20
Azobenzene	ND	mg/Kg	0.20
Benz(a)anthracene	ND	mg/Kg	0.20
Benzo(a)pyrene	ND	mg/Kg	0.20
Benzo(b)fluoranthene	ND	mg/Kg	0.20
Benzo(g,h,i)perylene	ND	mg/Kg	0.50
Benzo(k)fluoranthene	ND	mg/Kg	0.20
Benzoic acid	ND	mg/Kg	0.50
Benzyl alcohol	ND	mg/Kg	0.20
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20
Butyl benzyl phthalate	ND	mg/Kg	0.20
Carbazole	ND	mg/Kg	0.20
4-Chloro-3-methylphenol	ND	mg/Kg	0.50
4-Chloroaniline	ND	mg/Kg	0.50
2-Chloronaphthalene	ND	mg/Kg	0.25
2-Chlorophenol	ND	mg/Kg	0.20
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20
Chrysene	ND	mg/Kg	0.20
Di-n-butyl phthalate	ND	mg/Kg	0.50
Di-n-octyl phthalate	ND	mg/Kg	0.20
Dibenz(a,h)anthracene	ND	mg/Kg	0.20
Dibenzofuran	ND	mg/Kg	0.20
1,2-Dichlorobenzene	ND	mg/Kg	0.20
1,3-Dichlorobenzene	ND	mg/Kg	0.20
1,4-Dichlorobenzene	ND	mg/Kg	0.20
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25
Diethyl phthalate	ND	mg/Kg	0.20
Dimethyl phthalate	ND	mg/Kg	0.20
2,4-Dichlorophenol	ND	mg/Kg	0.40
2,4-Dimethylphenol	ND	mg/Kg	0.30
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50
2,4-Dinitrophenol	ND	mg/Kg	0.40
2,4-Dinitrotoluene	ND	mg/Kg	0.50
2,6-Dinitrotoluene	ND	mg/Kg	0.50
Fluoranthene	ND	mg/Kg	0.25
Fluorene	ND	mg/Kg	0.50
Hexachlorobenzene	ND	mg/Kg	0.20

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-21093

MBLK

Batch ID: 21093 Analysis Date: 1/12/2010 12:17:03 PM

Hexachlorobutadiene	ND	mg/Kg	0.20
Hexachlorocyclopentadiene	ND	mg/Kg	0.20
Hexachloroethane	ND	mg/Kg	0.20
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25
Isophorone	ND	mg/Kg	0.50
2-Methylnaphthalene	ND	mg/Kg	0.25
2-Methylphenol	ND	mg/Kg	0.50
3+4-Methylphenol	ND	mg/Kg	0.20
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20
N-Nitrosodiphenylamine	ND	mg/Kg	0.20
Naphthalene	ND	mg/Kg	0.20
2-Nitroaniline	ND	mg/Kg	0.20
3-Nitroaniline	ND	mg/Kg	0.20
4-Nitroaniline	ND	mg/Kg	0.25
Nitrobenzene	ND	mg/Kg	0.50
2-Nitrophenol	ND	mg/Kg	0.20
4-Nitrophenol	ND	mg/Kg	0.20
Pentachlorophenol	ND	mg/Kg	0.40
Phenanthrene	ND	mg/Kg	0.20
Phenol	ND	mg/Kg	0.20
Pyrene	ND	mg/Kg	0.20
Pyridine	ND	mg/Kg	0.50
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20
2,4,5-Trichlorophenol	ND	mg/Kg	0.20
2,4,6-Trichlorophenol	ND	mg/Kg	0.20

Sample ID: lcs-21093

LCS

Batch ID: 21093 Analysis Date: 1/12/2010 12:46:17 PM

Acenaphthene	1.353	mg/Kg	0.20	1.67	0	81.0	42.5	90
4-Chloro-3-methylphenol	2.753	mg/Kg	0.50	3.33	0	82.7	39.6	101
2-Chlorophenol	2.371	mg/Kg	0.20	3.33	0	71.2	40.1	96.7
1,4-Dichlorobenzene	1.222	mg/Kg	0.20	1.67	0	73.2	34.6	95.3
2,4-Dinitrotoluene	1.471	mg/Kg	0.50	1.67	0	88.1	37.1	101
N-Nitrosodi-n-propylamine	1.157	mg/Kg	0.20	1.67	0	69.3	33.3	103
4-Nitrophenol	2.705	mg/Kg	0.20	3.33	0	81.2	32.7	125
Pentachlorophenol	2.429	mg/Kg	0.40	3.33	0	72.9	35.5	99.3
Phenol	2.338	mg/Kg	0.20	3.33	0	70.2	35.5	104
Pyrene	1.101	mg/Kg	0.20	1.67	0	65.9	34.4	90.6
1,2,4-Trichlorobenzene	1.313	mg/Kg	0.20	1.67	0	78.6	38.5	95

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 7471: Mercury											
Sample ID: 1001093-02AMSD		MSD				Batch ID: 21100	Analysis Date: 1/12/2010 3:34:04 PM				
Mercury	0.2095	mg/Kg	0.033	0.157	0.0319	113	75	125	3.76	20	
Sample ID: MB-21100		MBLK				Batch ID: 21100	Analysis Date: 1/12/2010 3:25:17 PM				
Mercury	ND	mg/Kg	0.033								
Sample ID: LCS-21100		LCS				Batch ID: 21100	Analysis Date: 1/12/2010 3:27:01 PM				
Mercury	0.1708	mg/Kg	0.033	0.167	0	102	80	120			
Sample ID: 1001093-02AMS		MS				Batch ID: 21100	Analysis Date: 1/12/2010 3:32:18 PM				
Mercury	0.2175	mg/Kg	0.033	0.154	0.0319	121	75	125			

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, Gallup
 Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: Soil Metals											
Sample ID: 1001093-10AMSD		MSD			Batch ID: 21084		Analysis Date: 1/11/2010 2:07:44 PM				
Arsenic	22.87	mg/Kg	13	24.8	0	92.2	75	125	1.50	20	
Cadmium	25.07	mg/Kg	0.50	24.8	0	101	75	125	2.15	20	
Chromium	33.79	mg/Kg	1.5	24.8	9.088	99.6	75	125	2.43	20	
Lead	30.06	mg/Kg	1.3	24.8	7.228	92.1	75	125	2.56	20	
Selenium	22.00	mg/Kg	13	24.8	0	88.7	75	125	6.74	20	
Silver	24.43	mg/Kg	1.3	24.8	0	98.5	75	125	1.29	20	
Sample ID: MB-21084		MBLK			Batch ID: 21084		Analysis Date: 1/11/2010 12:24:38 PM				
Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								
Sample ID: MB-21085		MBLK			Batch ID: 21085		Analysis Date: 1/11/2010 12:29:16 PM				
Arsenic	ND	mg/Kg	2.5								
Barium	ND	mg/Kg	0.10								
Cadmium	ND	mg/Kg	0.10								
Chromium	ND	mg/Kg	0.30								
Lead	ND	mg/Kg	0.25								
Selenium	ND	mg/Kg	2.5								
Silver	ND	mg/Kg	0.25								
Sample ID: LCS-21084		LCS			Batch ID: 21084		Analysis Date: 1/11/2010 12:26:52 PM				
Arsenic	24.60	mg/Kg	2.5	25	0	98.4	80	120			
Barium	25.75	mg/Kg	0.10	25	0	103	80	120			
Cadmium	24.82	mg/Kg	0.10	25	0	99.3	80	120			
Chromium	25.67	mg/Kg	0.30	25	0	103	80	120			
Lead	25.15	mg/Kg	0.25	25	0.2253	99.7	80	120			
Selenium	25.03	mg/Kg	2.5	25	0	100	80	120			
Silver	25.66	mg/Kg	0.25	25	0.101	102	80	120			
Sample ID: LCS-21085		LCS			Batch ID: 21085		Analysis Date: 1/11/2010 12:31:29 PM				
Arsenic	24.06	mg/Kg	2.5	25	0	96.2	80	120			
Barium	25.50	mg/Kg	0.10	25	0	102	80	120			
Cadmium	24.35	mg/Kg	0.10	25	0	97.4	80	120			
Chromium	25.50	mg/Kg	0.30	25	0	102	80	120			
Lead	24.75	mg/Kg	0.25	25	0.1573	98.4	80	120			
Selenium	24.29	mg/Kg	2.5	25	0	97.1	80	120			
Silver	25.37	mg/Kg	0.25	25	0.0325	101	80	120			
Sample ID: 1001093-10AMS		MS			Batch ID: 21084		Analysis Date: 1/11/2010 2:05:36 PM				
Arsenic	22.53	mg/Kg	13	24.89	0	90.5	75	125			
Cadmium	24.54	mg/Kg	0.50	24.89	0	98.6	75	125			
Chromium	32.98	mg/Kg	1.5	24.89	9.088	96.0	75	125			
Lead	30.84	mg/Kg	1.3	24.89	7.228	94.9	75	125			

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, Gallup
Project: API Overflow Sample Points

Work Order: 1001093

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	--------	---------	------	----------	-----------	------	----------	------

Method: EPA Method 6010B: Soil Metals

Sample ID: 1001093-10AMS

MS

Batch ID: 21084

Analysis Date: 1/11/2010 2:05:36 PM

Selenium	20.56	mg/Kg	13	24.89	0	82.6	75	125			
Silver	24.75	mg/Kg	1.3	24.89	0	99.4	75	125			

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

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Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU**

Date Received:

1/8/2010

Work Order Number **1001093**

Received by: **ARS**

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

Matrix:

Carrier name: **FedEx**

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?

4.1°

<6° C Acceptable

If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Monday, January 25, 2010 2:45 PM
To: Monzeglio, Hope, NMENV
Cc: Chavez, Carl J, EMNRD
Subject: API OVERFLOW EVENTS of September 5 and December 8, 2009
Attachments: API NMED RESPONSE LETTER-Part 1.pdf; HALL LAB DATA SUMMARY-Part 2.xls

Dear Ms Monzeglio and Mr. Chavez,

Please accept the following attachments in response to NMED request concerning the API overflows that occurred on September 5, 2009 and December 8, 2009. The response letter to NMED for the September 5, 2009 API over flow is due on February 1, 2010. Consequently, the response letter to NMED for the December 8, 2009 is due on January 25, 2010 via e-mail. This cover letter addresses both API over flow events due to their chronological sequence and will be explained in greater detail. The above attachments are divided into the following two parts as indicated below:

Part 1 ("pdf") - Cover Letter, NMED correspondence (January 7, 2010 and October 27, 2009); C-141 (December 8 and September 5, 2009 events); Drawings (API Area, Confirmation Samples, Sampling Plans (12/8/2009 and 9/5/2009))

Part 2 ("Excel")- Hall Environmental Laboratory Data Summary (Confirmation Sampling of January 6, 2010 for Part 3)

NOTE: The Hall Environmental Laboratory Analytical Data for the Confirmation Sampling of January 6, 2010 will be submitted as a hard copy in the final version of this report due to the size of the file.(68 psges) A hard copy of the entire report will be submitted forth coming.

Sincerely,
Beck Larsen

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.



CERTIFIED MAIL: 7008 2810 0000 4726 1680
January 25, 2010

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: **CLEANUP STATUS for Western Refining (Gallup Refinery) for
API OVERFLOW on SEPTEMBER 5, 2009 and
API OVERFLOW on DECEMBER 8, 2009
EPA ID NO. NMD000333211
HWB-GRCC-MISC**

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter in response to a letter from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (January 7, 2010) that references an API overflow that occurred on December 8, 2009. Additionally, this letter will be in response to the API overflow that also occurred on September 5, 2009. This letter will address these two events as a combination due to the close proximity of these two events and due to the required remedial activities. A separate C-141 (Final Report) for each event will be pending at the completion of the remediation project. The following information shall address the nature of the API overflow events of September 5, 2009 and December 8, 2009, remedial actions that have been performed to date, and additional remediation activity that will be required based on analytical data recently received.

I. THE INCIDENT- "API OVER FLOW on SEPTEMBER 5, 2009" (Report due 2/1/2010)

Preliminary analytical samples were originally collected on September 16, 2009. The laboratory results were received on October 8, 2009. Gallup received a letter from the New Mexico Environmental Department-Hazardous Waste Bureau on October 27, 2009 requiring additional cleanup and sampling activities to be performed.

The following items are to address the issues as originally prescribed in the October 27 letter from the New Mexico Environmental Department-Hazardous Waste Bureau.

a. "The Permittee must remove additional contaminated soil in the vicinity of the API Separator and the Baker Tank within the hatched area identified in the "Sampling Plan" figure."

Cleanup efforts began around the first week of November and continued through the third week of November 2009. Contaminated soil in the vicinity of the API Separator and the Baker Tank areas as indicated on the revised Sampling Plan from the Hazardous Waste Bureau was excavated. This excavated material was put in a roll-off box for disposal off-site as Hazardous Waste. The amount of material excavated was approximately 18 to 25 cu yd. This material was later manifested and shipped off-site as Hazardous Waste via Rinchem (US. Ecology, Beatty, NV).

b. "The Permittee must collect confirmation soil samples from the approximate locations of the former sample locations with the exception the roll-off box location. The Permittee must also collect samples from the additional sample locations identified in the attached figure. All samples must be collected from the limit of the excavation not to exceed six inches in depth."

The confirmation sampling was originally scheduled to be collected during the first week of December 2009. On December 8, Gallup had an area wide power outage from the Utility Company that supplies electrical power to the plant. Due to this power outage at our facility, the plant was without power in order to prevent the API from overflowing. As a result of the December 8 event and clean up efforts merging with the clean up efforts of the September 5 event, confirmation sampling was not conducted until January 6, 2010. Discussion on the API overflow from the event on December 8, 2009 will be provided below.

c. "All confirmation samples must be analyzed for DRO extended. In addition, samples collected from locations API-E-2 and BKT-E-7, BKT-S-8 and BKT-W-9 must also be analyzed for gasoline range organics."

Due to issues addressed above, confirmation samples were not collected until January 6, 2009. All fourteen (14) sample points as previously identified and directed by the Agency were to be collected and analyzed for the following: Volatile Organic Compounds (VOC) (Method 8260), Semi-volatile Compounds (Method 8270), Total Petroleum Hydrocarbon (THP) (including DRO/MRO/GRO) (Method 8015) and RCRA 8 Metals. The sampling methodology and the analytical results from the confirmation sampling event will be discussed below.

d. "The confirmation samples must not exceed organic concentrations of 200 mg/kg, if such concentrations exceed 200 mg/kg then additional soil removal will be required until detected concentrations are less than 200 mg/kg."

As previously identified above (b) due to overlapping API overflow events, confirmation samples were not collected until January 6, 2010. The results were received on January 15, 2010. As determined from the analytical, it was determined that additional soil remediation will be necessary. An explanation of the sampling and analytical results will be discussed in detail below.

e. "The Permittee must submit a report (letter format is acceptable) that describes the additional soil clean up activities, explain how additional contaminated soil was removed, describe how confirmation samples are collected and documents the disposal of the contaminated soils. The Permittee must also include all analytical data in table format, copies

of the final laboratory reports, and include a figure that identifies the locations of all confirmation samples.

As previously noted above, remediation was concluded near the end of November 2009, but, confirmation sampling was not conducted until January 6, 2010. The additional remedial activities including contaminated soil removal, confirmation sampling, and disposal methods of the contaminated soil will be discussed below for the December 8, 2009 API Overflow. Additionally, analytical data of the confirmation sampling will be discussed below.

II. THE INCIDENT- "API OVER FLOW on DECEMBER 8, 2009" (Report due 1/25/2010)

Gallup received a follow-up e-mail from the New Mexico Environmental Department-HWB on December 21, 2009 requesting additional information about the API overflow that occurred on December 8, 2009. A response e-mail to that request was submitted to HWB on December 23, 2009. Gallup received additional correspondence (via e-mail) on January 7, 2010 requesting a formal report addressing additional concerns. The following addresses issues as identified by the HWB based on the Agency's concerns.

a. Soil Remediation Activities-

Clean up efforts for the API overflow on September 5 was completed by the end of November 2009. Contaminated soil in the vicinity of the API Separator and the Baker Tank areas as indicated on the revised Sampling Plan from the Hazardous Waste Bureau was excavated. This excavated material was put in a roll-off box for disposal off-site as Hazardous Waste. The amount of material excavated was approximately 18 to 25 cu yd. This material was later manifested and shipped off-site as Hazardous Waste via Rinchem (US. Ecology, Beatty, NV). Confirmation sampling had not been conducted at this time.

The API overflows from December 8 cleanup efforts around the API and Baker Tank area coincide with clean up operations from September 5, 2009 event. Contamination was localized within the API and Baker Tank containment areas providing a similar contamination foot print for confirmation sampling. Confirmation samples were collected on January 6, 2010 for both events. Based on the analytical results, it is determined that additional remediation and confirmation sampling will be required.

b. Hazardous Waste Management / Transportation Procedures-

The contaminated soil and gravel from both API overflows, September 5 and December 8, will be treated and managed as a Listed Hazardous Waste in accordance with applicable generator requirements as found in 40CFR262 and 40CFR265 (Subpart I). All contaminated soil and gravel will be containerized in a roll-off box, manifested as Hazardous Waste with a designated Hazardous Waste Code (F037/F038/K051), and transported off-site for disposal via Rinchem to US Ecology, Beatty, NV, an approved TSD Facility. A profile has already been established for this waste stream through Rinchem.

c. Revised Sampling Plan-

Due to the containment areas surrounding the API and Baker Tanks, the spill foot print for both incidents are the same. Fourteen sample points were previously identified through an approved sampling plan by the New Mexico Environmental Department-Hazardous Waste Bureau (HWB) as

addressed in correspondence via e-mail of October 27, 2009 (for September 5 API overflow) and January 7, 2010 (for the December 8 API overflow). Therefore, sampling will be in accordance with the HWB direction.

d. Confirmation Sampling-

After the contaminated soil and gravel from the API overflows events of September 5 and December 8, 2009 were excavated and placed in roll-off boxes, confirmation sampling was conducted. On January 6, 2010, confirmation sampling was conducted as required by the Agency. The analysis was directed by the HWB based on the approved sampling plan.

The sampler excavated potentially contaminated soil at the locations as designated on the sampling plan to a maximum depth of 6 inches. The sampler followed proper decontamination procedures between all fourteen sample points in order to minimize any cross contamination. The samples were collected in an 8 oz jar for shipment to Hall Environmental Laboratory. The laboratory analyzed each sample received for the following: Volatile Organic Compounds (VOC) (Method 8260), Semi-volatile Compounds (Method 8270), Total Petroleum Hydrocarbon (TPH) (including DRO/MRO/GRO) (Method 8015) and RCRA 8 Metals.

e. Laboratory Results-

Gallup received analytical results from Hall Environmental Laboratories on January 15, 2010 for the contaminated soil as a result of the two API overflows that occurred on September 5 and December 8, 2009. The analysis indicated nine sample areas with TPH (DRO and GRO) values exceeding the 200 mg/kg (>200 mg/kg) in accordance with NMED "TPH Screening Guidelines". The contaminated areas identified are as follows: API-N-1, API-E-2, API-E-3, API-S-4, API-W-5, BKT-S-8, BKT-W-9, CHN-C-11, NBT-N-13. Additionally, BKT-W-9 indicated an elevated level of Xylene (180 mg/kg) which is above the NMED screening levels of 82 mg/kg as indicated in NMED "Technical Background Document for development of Soil Screening Levels". These contaminated areas are indicated on the attached "Hall Environmental Laboratory Data Summary" spreadsheet.

Based on the analysis as indicated above and the attached spreadsheet with inclusive data, it is concluded that additional remedial activities and confirmation sampling will be required for the API area.

f. Over flow volume determination-

The initial C-141 indicated 739 bbls of API oily/water overflow during a 10 to 12 hour intermittent discharge as a result of the API overflow of December 8, 2009. During this time frame, the facility was experiencing an area wide power outage as a result of storms at Tristate Power Company distribution center (substation) located in Albuquerque. During this time period, many pumps and auxiliary equipment were not operational in order to handle normal flow conditions. A material balance was primarily used to determine the quantity of API oily/water that was discharged. The amount of oily/water mixture recovered was determined from information supplied by vacuum truck operators after this event. The oily/water was retrieved via a vacuum truck and routed to the process sewer system for reprocessing through the API. A quantification of oil recovery could not be determined.

III. SUMMARY:

As indicated from the confirmation samples that were collected on January 6, 2010, additional remediation of the API area contamination will be required. Gallup received analysis from Hall Environmental Laboratories on January 15, 2010. The analysis indicated nine sample areas with TPH (DRO and GRO) values exceeding the 200 mg/kg (>200 mg/kg) level as specified in accordance with NMED "TPH Screening Guidelines". These contaminated areas are indicated on the attached "Hall Environmental Laboratory Data Summary" spreadsheet.

Gallup is proceeding to excavate contaminated soil based on the analysis received from Hall Environmental Laboratories. The Hall Analytical Summary and Confirmation Sample drawing defines the locations that will be required to be excavated. Confirmation samples will then be collected.

The soil will be treated as Hazardous Waste (F037/F038/K051), placed in roll-off boxes under the 90 day status requirements, and be properly disposed in accordance with all Federal and State Regulations.

Both of these API overflows were the direct result of inclement weather conditions that were beyond the control of the Refinery. Gallup is in the design phase of a new "Stormwater Diversion Project" in order to eliminate overflows from the new API due to unexpected or inundated stormwater discharges. This project will be composed of two (2) Stormwater Diversion Tanks (T-27 and T-28) and an additional diversionary tank. This new system will connect directly into the current stormwater system. A new twenty-four inch (24") pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28). The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API.

IV. DOCUMENT ENCLOSURE/ATTACHMENTS:

The following enclosures or attachments have been included in order to provide the Agency with a visual reference in order to aid in a better understanding of the event surrounding the API overflows that occurred on September 5 and December 8, 2009. These enclosures include the following: drawing of the API area indicating the extent of overflow contamination, Release Notification Forms (C-141) (Initial) Reports Filed with OCD/NMED, NMED correspondence, approved API Sampling Plan, Hall Environmental Laboratory Data Summary Spreadsheet, Hall Environmental Laboratory Analysis.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest) (Gallup Refinery)

Enc: **NMED correspondence letters of January 7, 2010 and October 27, 2009**
Drawing of the API area
Drawing of the API area-confirmation samples
Drawing of API Sampling Plan, API Overflow of 12/8/2009
Drawing of API Sampling Plan, API Overflow of 09/5/2009
Drawing of NMED Corrected Sampling Plan (Refer to October 27, 2009 NMED Letter)
OCD (Release Notification and Corrective Action, C-141 (Initial) Report Submittals
for September 5 and December 8, 2009 API Overflow events
Hall Environmental Laboratory Data Summary Spreadsheet
Hall Environmental Laboratory Analytical Report

Cc: Mr. Mark Turri, Gallup (Southwest), Refinery Manager
Mr. Ed Riege, Gallup (Southwest), Environmental Manager)
File

Larsen, Thurman

From: Monzeglio, Hope, NMENV [hope.monzeglio@state.nm.us]
Sent: Thursday, January 07, 2010 7:27 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV; Riege, Ed; Turri, Mark; Kielsing, John, NMENV
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Beck

All contaminated soil and gravel must be removed, managed as hazardous waste, and shipped off-site for disposal. The contaminated soil and gravel must comply with the generator requirements found in 40 CFR 262 (e.g., compliance with 90-day storage requirements and all recordkeeping, waste profiling, transport, and disposal requirements). Confirmation samples must be collected from the locations identified in the "Proposed Sampling Plan." The soil samples must be analyzed for volatile organic compounds (VOCs) by EPA Method 8260, semi volatile organic compounds (SVOCs) by EPA Method 8270, diesel range organics extended (DRO) and gasoline range organics (GRO) by EPA Method 8015M, and RCRA metals.

Please revise and resend the Proposed Sampling Plan (email is acceptable) to identify the locations of all containment structures, berms, roads, natural levee etc., in reference to the area in which the release occurred. Also explain how Gallup determined the volume of the spill. This information must be submitted by January 25, 2010.

Gallup must make note that the API separator has leaked in the past and contaminated groundwater in this area; therefore, NMED does not agree that the environmental impact from the API overflows (which are becoming routine) is minimized by the permeability of the containment and the surrounding soils in the API and Baker tank areas. Gallup must eliminate releases from the API separator. NMED is evaluating additional requirements to address these frequent API overflows.

Let me know if you have any questions.

Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Wednesday, December 23, 2009 2:04 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV; Riege, Ed; Turri, Mark
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Dear Hope,

The following e-mail is a follow-up response to the e-mail that we received on December 21, 2009, in reference to the API overflow that occurred on December 8. The overflow as mentioned previously on the initial C-141 was due to inclement weather and storm conditions that passed through the area that resulted in a power loss to the Refinery. The power loss was due to "mother nature" that caused the power company to experience a loss of incoming power supplied to the Refinery, and therefore, was beyond our control. I have included a "pdf" drawing indicating the extent of the API overflow contamination area, and a picture reflecting this area as well.

The extent of the API overflow contamination was similar to the one that was experienced on September 5, 2009 except that the overflow on December 8, 2009 did not reach the lagoons due to the road berm that was constructed previously. When the power was lost, the Refinery did not have any operational controls that could retard or restrict the effluent flow to the API. The liquid began coming out of the overflow spouts as noted previously on the C-141. The API is bordered by a road between the Aeration Basins/Lagoons and the API on the west side of the API that acted as a containment preventing overflows from reaching the basins or lagoons. The road also extends past the Baker frac tank which is used to catch API overflows during brief periods. This road in conjunction with the natural levee on the east side creates a containment area so as to localize any API overflow that may occur. The road base, the containment, and the surrounding soil in the areas of the API are primarily clay. Any environmental impact due to API overflow (primarily water) is minimized due to the permeability of this containment and the surrounding soils in the API and Baker tank areas.

Attached is the proposed sampling plan for the API Overflow area. Please provide the required analysis that the agency is requiring for this event.

1/20/2010

Sincerely,
Beck Larsen

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Monday, December 21, 2009 9:22 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Beck

Please provide NMED with a drawing showing the extent of this release, include any photographic documentation if there is any. Include a detailed description of the areas the release covered and clarify if the release entered into the Aeration Lagoons, Evaporation Ponds 1 and 2? If the release entered the Aeration Lagoons or the Evaporation Ponds, describe all cleanup activities. Submittal of this information by email is acceptable.

Thanks
Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Friday, December 18, 2009 6:11 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Subject: Initial Report (C-141) for API Spill of December 8, 2009

Dear Hope, Carl, and Brandon,
The following attachment is for the API Spill that occurred on December 8, 2009 due to a winter storm that caused a power outage at Western Refining (Gallup Refinery). Initial cleanup has been completed. Please contact me if you require additional information.

Sincerely,
Beck Larsen

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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

October 27, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

**SUBJECT: SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW REPORT
WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY
EPA ID NO. NMD000333211
HWP-GRCC-MISC**

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) received the Western Refining Southwest Inc., Gallup Refinery (the Permittee) Report summarizing the overflow and interim measures remedial actions at the API separator on September 5, 2009. The Permittee collected ten soil samples and presented the analytical results in a table titled "Hall Environmental Laboratory Data Summary." The analytical results identified diesel range organics (DRO) extended (which include motor oil range organics (MRO)) ranging from 229 mg/kg to 11,000 mg/kg, all exceeding the NMED's Total Petroleum Screening (TPH) Guidelines of 200 mg/kg for "unknown oil." NMED compared the cumulative values of the DRO and MRO detections when comparing the values to the NMED TPH standard for unknown oil of 200 mg/kg (e.g., sample BKT-E-7 had a DRO detection of 150 mg/kg and a MRO detection of 79 mg/kg with a cumulative value of 229 mg/kg). Because the release came from the API separator, the exact source(s) of the hydrocarbons are unknown.

Mr. Ed Riege
Gallup Refinery
October 27, 2009
Page 2 of 2

The Permittee must complete additional cleanup activities as follows:

- a. The Permittee must remove additional contaminated soils in the vicinity of the API Separator and the Baker Tank within the hatched area identified in the "Sampling Plan" figure (attached).
- b. The Permittee must collect confirmation samples from the approximate locations of all of the former sampling locations with the exception the roll-off box location. The Permittee must also collect samples from the additional sample locations identified in the attached figure. All samples must be collected from the limits of the excavation not to exceed six inches in depth.
- c. All confirmation samples must be analyzed for DRO extended. In addition, samples collected from locations API-E-2 and BKT-E-7, BKT-S-8, and BKT-W-9 must also be analyzed for gasoline range organics.
- d. The confirmation samples must not exceed organics concentrations of 200 mg/kg, if such concentrations exceed 200 mg/kg then additional soil removal will be required until detected concentrations are less than 200 mg/kg.
- e. The Permittee must submit a report (letter format is acceptable) that describes the additional soil clean up activities, explains how additional contaminated soil was removed, describes how confirmation samples are collected and documents the disposal of the contaminated soils. The Permittee must also include all analytical data in table format, copies of the final laboratory reports, and include a figure that identifies the locations of all confirmation samples.

Mr. Ed Riege
Gallup Refinery
October 27, 2009
Page 3 of 3

The Permittee must submit the report to NMED on or before February 1, 2010. If you have questions please contact Hope Monzeglio of my staff at 505-476-6045.

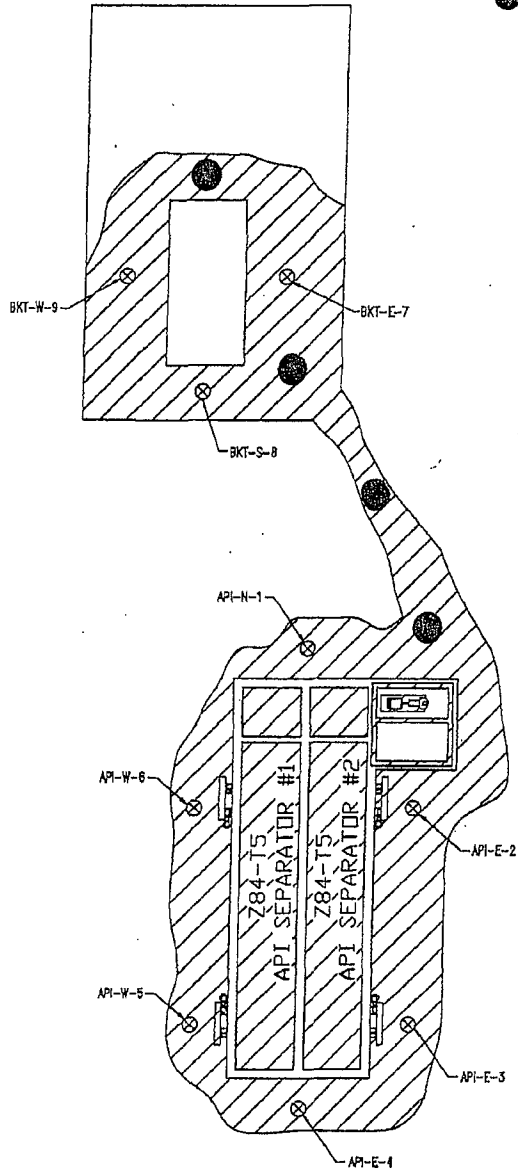
Sincerely,



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

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, NMEMNRD OCD
File: Reading GRCC 2009
GRCC-MISC

● Approximate additional
confirmation sample locations



SAMPLING PLAN

(API OVERFLOW) ON 09/05/09

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29' 030" Longitude 108° 24' 040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 739 bbls (API oily water)	Volume Recovered >720 bbls (API oily Water)
Source of Release API UNIT	Date and Hour of Occurrence 12/08/2009; 0300 hrs	Date and Hour of Discovery 12/05/2009; 0300 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED (Carl Chavez, Steve Conley, Hope Monzeglio)	
By Whom? Beck Larsen	Date and Hour 12/08/2009 / ~ 1030 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

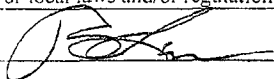
Describe Cause of Problem and Remedial Action Taken.*

At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hrs (December 8), a plant wide electrical power failure occurred to all units throughout the facility. After a thorough power distribution evaluation, the cause of this incident was found to be resultant of several power glitches or amperage line deviations from Tristate Power Company in Albuquerque. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241 to 0249 hours causing two power lines to slap together creating a Phase A / Phase C power line short at the Tristate distribution center or substation. These power glitches were transmitted to Western Refinery (Gallup Refinery) as an incoming line fluctuation or line distortion in amperage. This transmitted to a decrease in amperage of 15 to 20 percent. This distortion caused two of compressors to go off line initiating a plant wide electrical power failure to all units. After all information was collected from various sources, it was estimated that due to this power failure, the API incurred intermittently overflowed for about 10 to 12 hours. An onsite vacuum truck was immediately dispatched during this event in order to minimize and spread of contamination and to begin cleanup operations. No injuries were incurred during this event as a result of this power failure.

Describe Area Affected and Cleanup Action Taken.*

The affected area was localized around the API and baker frac tank containment areas. Initial cleanup efforts began immediately on Tuesday, December 8, 2009 during this event utilizing an onsite vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area in order that contamination would not spread. Initial cleanup efforts were completed on Monday, December 14, 2009. All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Final cleanup of this area will be determined based on laboratory analysis.

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

Signature: 
Printed Name: Beck Larsen

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/18/2009	Phone: (505) 722-0258	

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen	
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258	
Facility Name Gallup Refinery	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.5 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

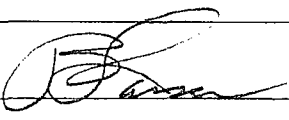
Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5 at approximately 1143 hrs, Off-site personnel began bypassing filters and weir box in preparation for a possible rain event. At about 1200 to 1230 hrs, Saturday, September, 5, 2009, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The API Operators began pumping from the new API to T-105/T-107 in order to remove as much water as possible from the API. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs a second rain event began due to a secondary thunderstorm cell passing over the facility. Once again, the new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

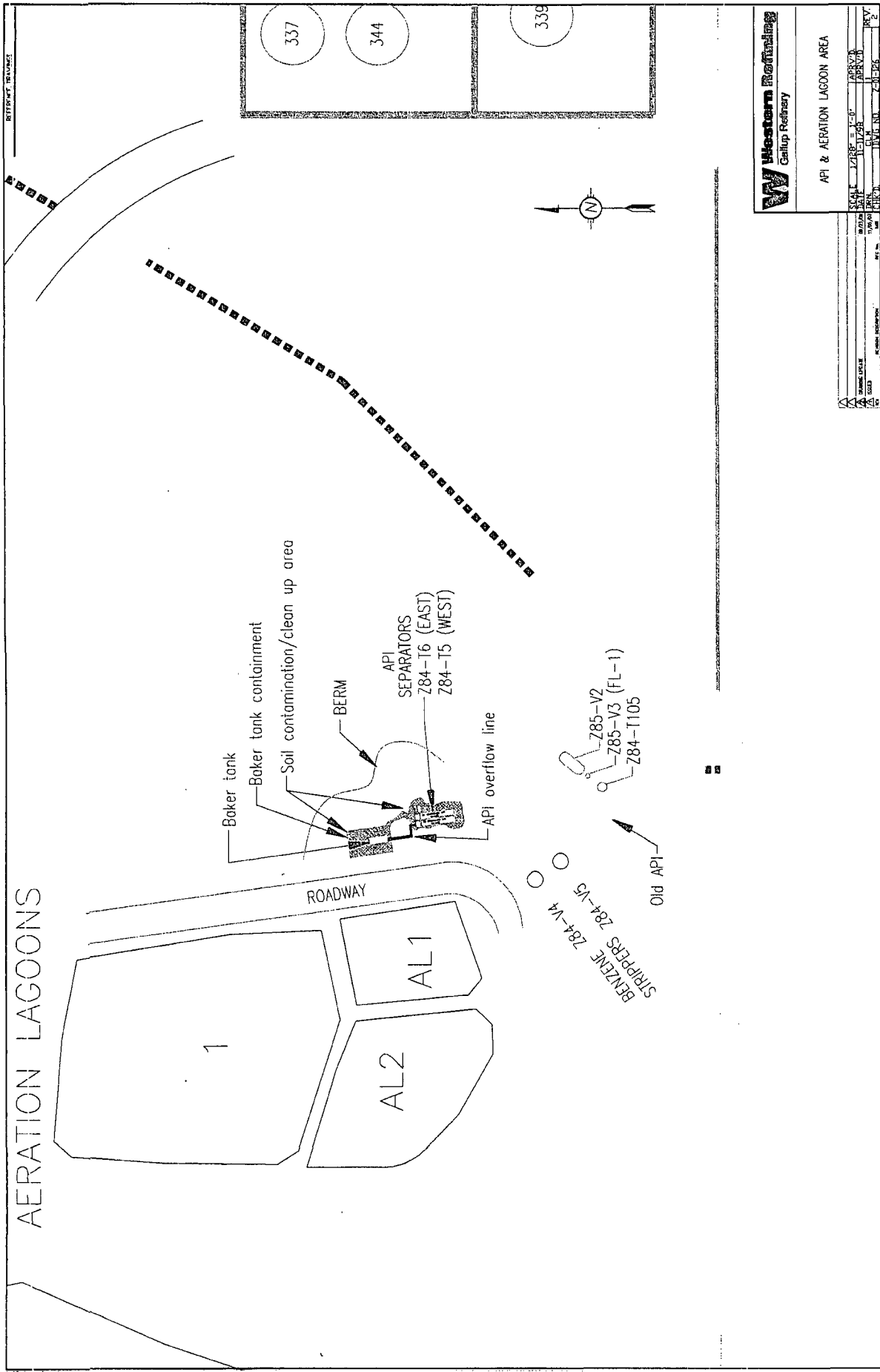
Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 10, 2009.

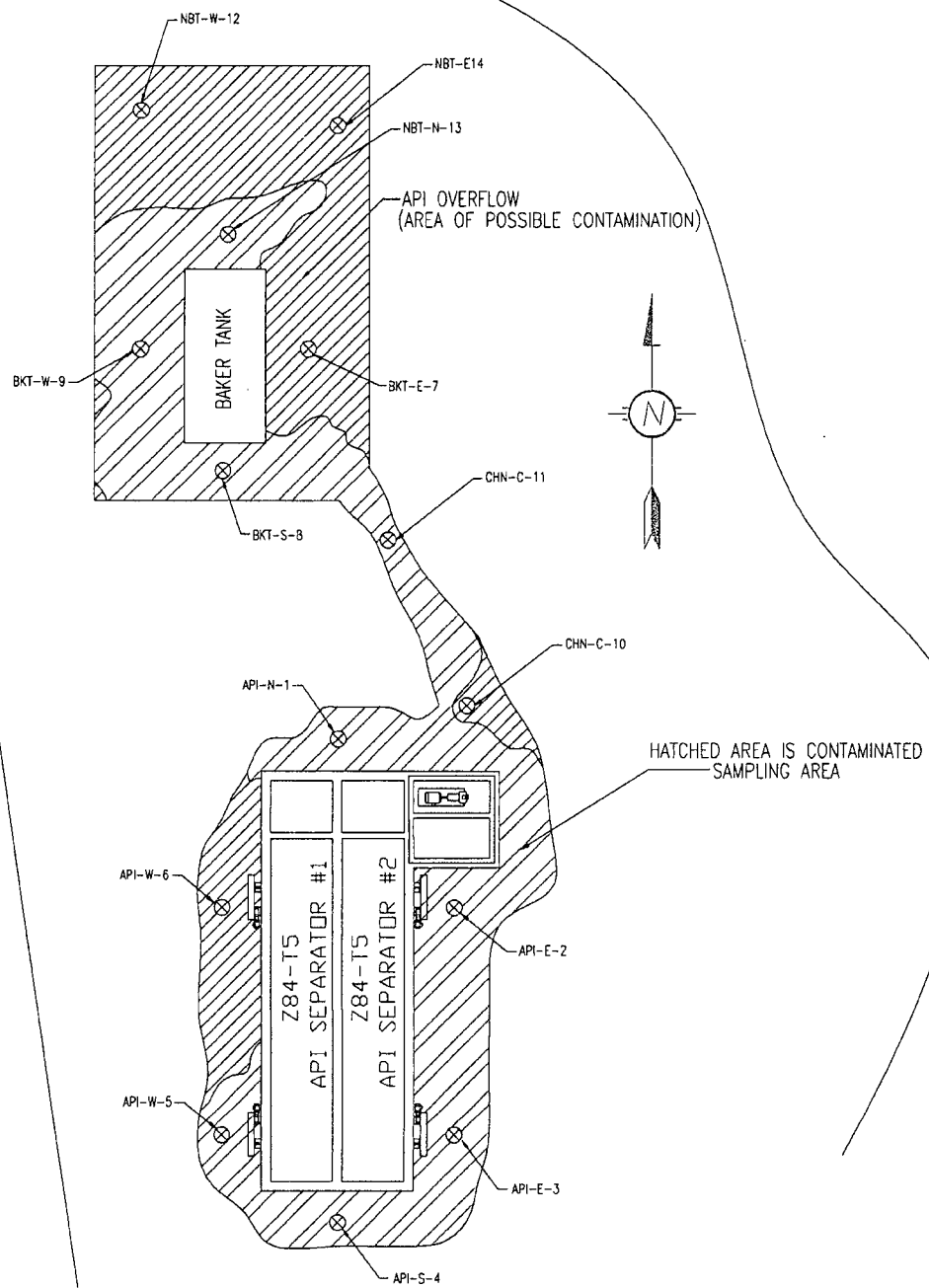
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/21/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

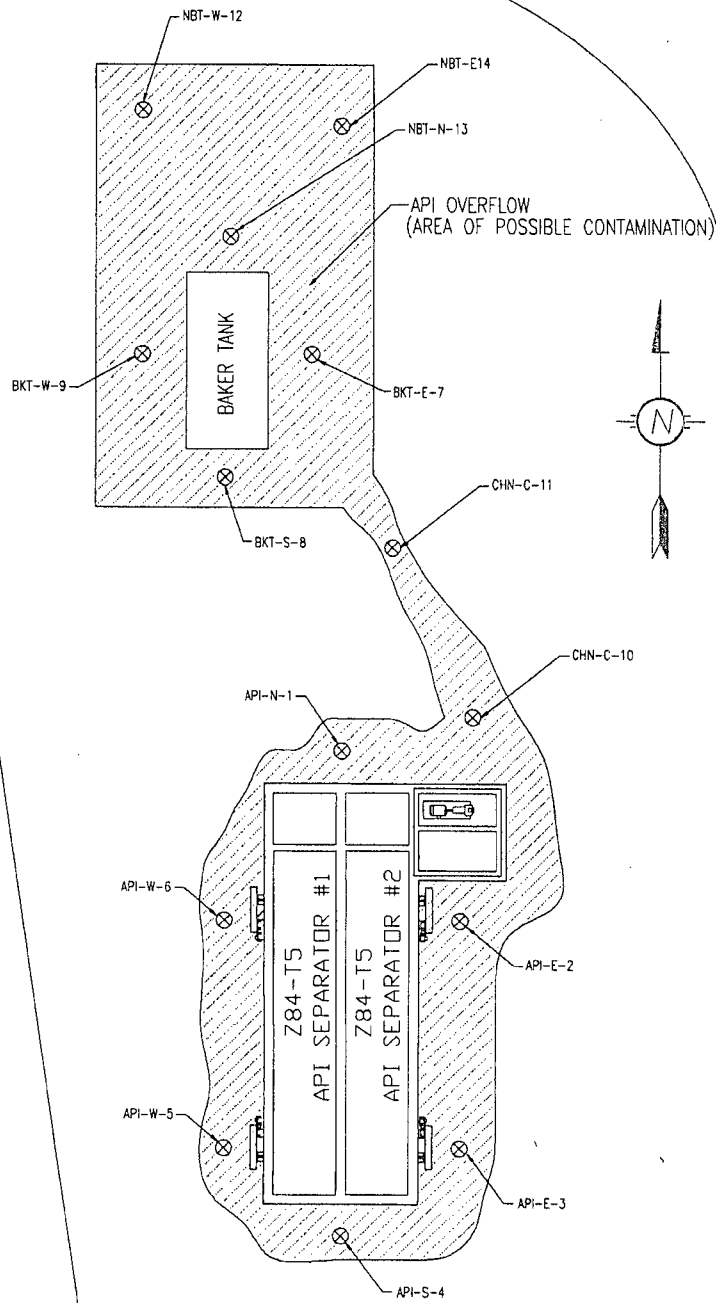


ROADWAY

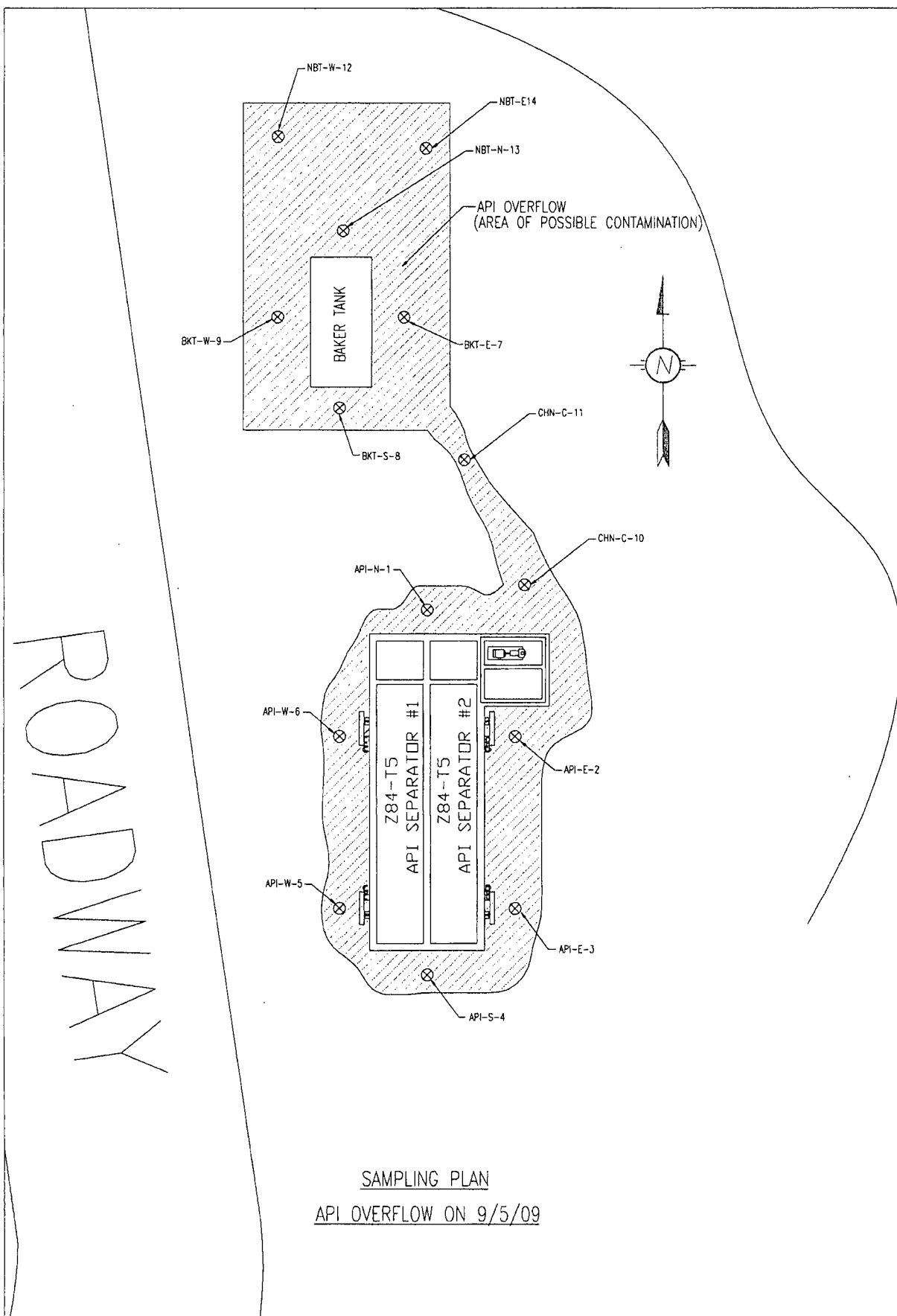


CONFIRMATION SAMPLES
API OVERFLOW ON 12/8/09

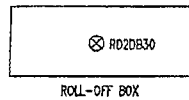
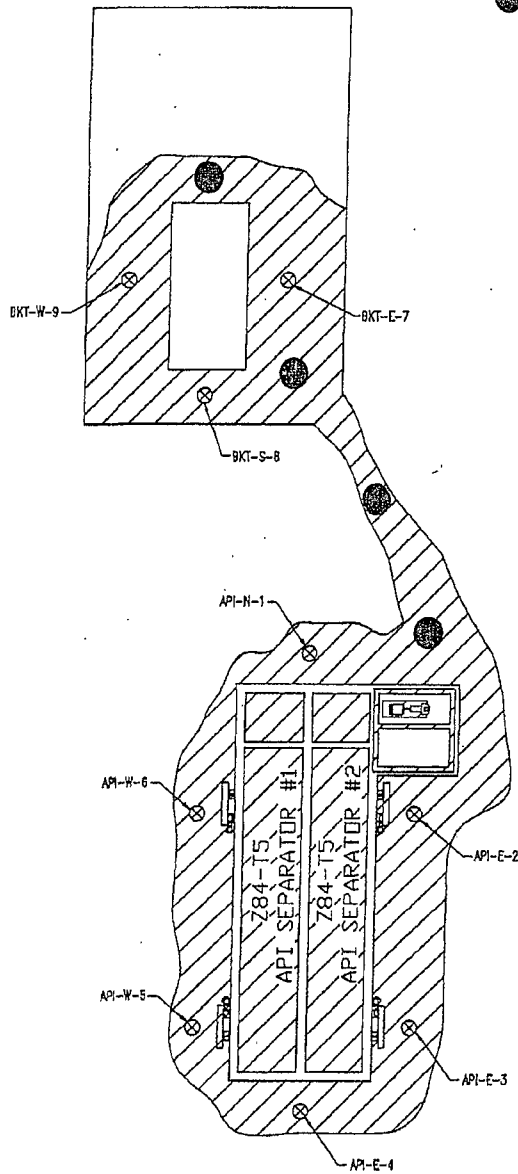
ROADWAY



SAMPLING PLAN
API OVERFLOW ON 12/8/09



● Approximate additional
confirmation sample locations



SAMPLING PLAN

(API OVERFLOW) ON 09/05/09

HALL ENVIRONMENTAL LABORATORY DATA SUMMARY

Sample ID: 1001093 (SOIL CONFIRMATION SAMPLING EVENT)

ANALYTES	Units	MAXIMUM CONTAMINATION FOUND														NMED SOIL SCREENING LEVELS (mg/Kg)	CLEANUP STATUS
		API-N-1	API-E-2	API-E-3	API-S-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	CHN-C-10	CHN-C-11	NBT-W-12	NBT-N-13	NBT-E-14		
TPH	mg/Kg	802	920	1620	9300	285	69	107	1990	2916	170	230	115	720	65	200	Contaminated
DRO	mg/Kg	710	870	1500	8700	210	14	31	1100	560	88	120	32	390	10	N/A	O.K.!
MRO	mg/Kg	67	0	0	500	50	50	50	500	56	72	100	78	120	50	N/A	O.K.!
GRO	mg/Kg	25	50	120	100	25	5	26	390	2300	10	10	5	210	5	N/A	O.K.!
Ignibility	deg F															N/A	O.K.!
Corrosivity	s.u.															N/A	O.K.!
Reactivity (CN)	mg/Kg															N/A	O.K.!
Reactivity (S)	mg/Kg															N/A	O.K.!
NO RCI ANALYTICAL TEST PERFORMED																	
METALS																	
As	mg/Kg	420	500	380	480	130	450	500	360	640	350	380	350	350	310	0	O.K.!
Ba	mg/Kg															640	O.K.!
Cd	mg/Kg															0	O.K.!
Cr	mg/Kg	6.6	4.0	73	5.2	1.7	3.4	8.7	7.6	9.0	9.1	11	9.1	7.3	5.0	73	O.K.!
Pb	mg/Kg	1.9	1.3	3.5	4.0	3.3	1.3	5.6	5.8	6.8	7.2	5.8	7.7	6.5	6.2	7.7	O.K.!
Hg	mg/Kg	0.048		0.11			0.035	0.071				0.077	0.068	0.067		0.11	O.K.!
Se	mg/Kg															0	O.K.!
Ag	mg/Kg															0	O.K.!
VOLATILES																	
Benzene	mg/Kg							0.15	0.91	6.9				0.25		6.9	O.K.!
Toluene	mg/Kg			0.06				0.82	14	11				5.8		14	O.K.!
Ethylbenzene	mg/Kg			0.15				0.28	5.1	28				2.6		28	O.K.!
1,2,4-Trimethylbenzene	mg/Kg	0.88	0.081		11	0.09		0.8	22	53		0.13		7.5		53	O.K.!
1,3,5-Trimethylbenzene	mg/Kg	0.36		1.1	1.1	0.16		0.31	7.9	20		0.059		3.4		20	O.K.!
Naphthlene	mg/Kg	0.32	0.22	0.74	1.1			0.24	10	13				0.81		13	O.K.!
1-Methylnaphthalene	mg/Kg	1.0	1.4	2.0	17	0.35		0.38	17	14				2.4		17	O.K.!
2-Methylnaphthalene	mg/Kg	1.6	1.6	2.3	35	0.34		0.71	34	27		0.23		3.0		35	O.K.!
Isopropylbenzene	mg/Kg							0.82	1.4	5.4				0.69		5.4	O.K.!
4-Isopropyltoluene	mg/Kg	0.64		0.11	0.44			0.88						0.32		0.88	O.K.!
n-butylbenzene	mg/Kg	0.22		0.71	0.72	0.13		0.13	3.5	6.2				1.0		6.2	O.K.!
n-propylbenzene	mg/Kg			0.097	0.43			0.12	3.0	10				1.3		10	O.K.!
sec-butylbenzene	mg/Kg	0.055	nd	0.11	0.56				1.2	2.6				0.44		2.6	O.K.!
Xylene, Total	mg/Kg			0.8	1.9			2.0	36	180				19		180	Contaminated
SEMIVOLATILES																	
Fluorene	mg/Kg				1.9											1.9	O.K.!
Phenanthrene	mg/Kg	0.47	1.1		9.2	0.21			2.0	0.6				0.65		9.2	O.K.!
Phenol	mg/Kg									0.36						0.36	N/A
Pyrene	mg/Kg		0.26		1.1				0.23							1.1	O.K.!
2-Methylnaphthalene	mg/Kg	0.5	1.6	2.1	29			8.7	8.7	3.5				0.89		29	O.K.!
Naphthlene	mg/Kg			0.49	59			2.5	2.5	1.5				0.24		59	O.K.!

NOTE: **BLANKS** indicate a Non-detect (ND).

"Light Blue" color area highlights (DRO" REQUIRED); IF DRO> 200 ppm, 8270 method was to be run. However, Method 8270 (Semi-volatiles was run on ALL sample points)

"Yellow" color area highlights the maximum contaminant for a particular sample ID above

"Green" highlights the NMED Soil Screen Levels (mg/Kg) for Industrial Facilities for a particular contaminant

"Brown" (CLEANUP STATUS) indicates that cleanup was sufficient or insufficient based on NMED Soil Screening Levels for Industrial Facilities.

Chavez, Carl J, EMNRD

From: Strange, Aaron [aaron.strange@hollycorp.com]
Sent: Thursday, January 14, 2010 4:07 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Moore, Darrell
Subject: 2010-1-10 API lift station fire
Attachments: 2010-1-10 API lift station fire.pdf

Carl and Hope,

Please see the attached C-141.

Thanks,

Aaron Strange
Environmental Technician, Senior

Environmental Department
Navajo Refining Co, LLC
Artesia NM
Off: (575) 746-5468
Cell: (575) 703-5057

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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Navajo Refining Co. LLC	Contact: Aaron Strange
Address: 501 E. Main Street Artesia, N.M. 88210	Telephone No. 575-748-3311
Facility Name: Artesia Refinery	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
-------------	---------	----------	-------	---------------	------------------	---------------	----------------	--------

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release: Fire	Volume of Release: NA	Volume Recovered: NA
Source of Release: API (Oil Water Separator) lift station at north end of API.	Date and Hour of Occurrence: 1/10/10 ~ 12:05	Date and Hour of Discovery: 1/10/10 ~ 12:05
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Left voicemail with OCD District Supervisor (575-748-1283 extension 104).	
By Whom? Aaron Strange	Date and Hour: 1/10/2010 at ~12:29	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

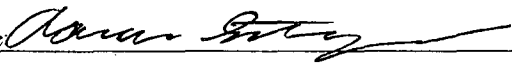
Describe Cause of Problem and Remedial Action Taken.*

On 1/10/2010 at ~12:05 there was a fire at the API (Oil Water Separator) lift station in the WWT (Waste Water Treater Unit # 80). The fire was extinguished with dry chemical and steam hoses then a foam blanket was placed inside the API Sump. All Electrical boxes and pumps were shut off after the fire because of unknown damages. The fire damaged electrical wiring, the platform, and possibly the pumps. Two spare tramp pumps are being used in place of the lift pumps. No one was injured from the event. No waste spilled out or got onto the ground. It is believed that one of the pumps had a non oil resistant power cord that swelled up and allowed the wires to short.

Describe Area Affected and Cleanup Action Taken.*

The area affected was a fire at the API (Oil Water Separator) lift station in the WWT (Waste Water Treater Unit # 80). The fire was extinguished by Navajo Employees.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Aaron Strange	Approved by District Supervisor:		
Title: Sr. Environmental Technician	Approval Date:	Expiration Date:	
E-mail Address: aaron.strange@hollycorp.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 1/14/2010	Phone: 575-703-5057		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Thursday, January 07, 2010 7:27 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV; Riege, Ed; Turri, Mark; Kieling, John, NMENV
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Beck

All contaminated soil and gravel must be removed, managed as hazardous waste, and shipped off-site for disposal. The contaminated soil and gravel must comply with the generator requirements found in 40 CFR 262 (e.g., compliance with 90-day storage requirements and all recordkeeping, waste profiling, transport, and disposal requirements). Confirmation samples must be collected from the locations identified in the "Proposed Sampling Plan." The soil samples must be analyzed for volatile organic compounds (VOCs) by EPA Method 8260, semi volatile organic compounds (SVOCs) by EPA Method 8270, diesel range organics extended (DRO) and gasoline range organics (GRO) by EPA Method 8015M, and RCRA metals.

Please revise and resend the Proposed Sampling Plan (email is acceptable) to identify the locations of all containment structures, berms, roads, natural levee etc., in reference to the area in which the release occurred. Also explain how Gallup determined the volume of the spill. This information must be submitted by January 25, 2010.

Gallup must make note that the API separator has leaked in the past and contaminated groundwater in this area; therefore, NMED does not agree that the environmental impact from the API overflows (which are becoming routine) is minimized by the permeability of the containment and the surrounding soils in the API and Baker tank areas. Gallup must eliminate releases from the API separator. NMED is evaluating additional requirements to address these frequent API overflows.

Let me know if you have any questions.

Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Wednesday, December 23, 2009 2:04 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV; Riege, Ed; Turri, Mark
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Dear Hope,

The following e-mail is a follow-up response to the e-mail that we received on December 21, 2009, in reference to the API overflow that occurred on December 8. The overflow as mentioned previously on the initial C-141 was due to inclement weather and storm conditions that passed through the area that resulted in a power loss to the Refinery. The power loss was due to "mother nature" that caused the power company to experience a loss of incoming power supplied to the Refinery, and therefore, was beyond our control. I have included a "pdf" drawing indicating the extent of the API overflow contamination area, and a picture reflecting this area as well.

The extent of the API overflow contamination was similar to the one that was experienced on September 5, 2009 except that the overflow on December 8, 2009 did not reach the lagoons due to the road berm that was constructed previously. When the power was lost, the Refinery did not have any operational controls that could retard or restrict the effluent flow to the API. The liquid began coming out of the overflow spouts as noted previously on the C-141. The API is bordered by a road between the Aeration Basins/Lagoons and the API on the west side of the API that acted as a containment preventing overflows from reaching the basins or lagoons. The road also extends past the Baker frac tank which is used to catch API overflows during brief periods. This road in conjunction with the natural levee on the east side creates a containment area so as to localize any API overflow that may occur. The road base, the containment, and the surrounding

soil in the areas of the API are primarily clay. Any environmental impact due to API overflow (primarily water) is minimized due to the permeability of this containment and the surrounding soils in the API and Baker tank areas.

Attached is the proposed sampling plan for the API Overflow area. Please provide the required analysis that the agency is requiring for this event.

Sincerely,
Beck Larsen

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Monday, December 21, 2009 9:22 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Beck

Please provide NMED with a drawing showing the extent of this release, include any photographic documentation if there is any. Include a detailed description of the areas the release covered and clarify if the release entered into the Aeration Lagoons, Evaporation Ponds 1 and 2? If the release entered the Aeration Lagoons or the Evaporation Ponds, describe all cleanup activities. Submittal of this information by email is acceptable.

Thanks
Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Friday, December 18, 2009 6:11 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Subject: Initial Report (C-141) for API Spill of December 8, 2009

Dear Hope, Carl, and Brandon,
The following attachment is for the API Spill that occurred on December 8, 2009 due to a winter storm that caused a power outage at Western Refining (Gallup Refinery). Initial cleanup has been completed. Please contact me if you require additional information.

Sincerely,
Beck Larsen

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This email has been scanned using Webroot Email Security.

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Wednesday, December 30, 2009 1:40 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark; Allen, Ann; Riley, Don
Subject: C-141 release notification form for spill on 12-23-2009
Attachments: C-141 signed copy.pdf

Dear Carl:

This form is being mailed out to you regarding a spill on 12-23-2009 at the Gallup Refinery.

My best wishes for the coming New Year! It is a real pleasure working with you.

Regards,

Raj

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-3833
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22"

Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-low Sulfur Diesel	Volume of Release 44 barrels of Ultra-low Sulfur Diesel (1848 gallons) estimate	Volume Recovered 68 barrels of an oil and water mixture (with 40 barrels or 1680 gallons of oil in the mixture) estimate
Source of Release Leaking underground pipeline at truck loading rack	Date and Hour of Occurrence 12/23/2009; 4 pm	Date and Hour of Discovery 12/23/2009; 4:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Ed Riege	Date and Hour 12/23/2009 6:30 pm (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable


Describe Cause of Problem and Remedial Action Taken.*

At approximately 4 pm on 12/23/2009, maintenance personnel noticed Ultra-low Sulfur Diesel (ULSD) emanating from a buried pipe at the west end of the truck loading rack. Immediate action was taken to isolate the line. Soil was excavated to uncover the leaking line, and a vacuum truck was used to collect approximately 750 gallons of product from the hole around the leaking line. Later, the asphalt in the area was washed down, and approximately 700 gallons of the wash water was captured by the vacuum truck. This mixture was approximately 5% product, or 35 gallons. Some of the ULSD and water mixture had run off the truck loading rack area and into an adjacent field where it had pooled in a depression. Approximately 1400 gallons of these liquids were picked up by the vacuum truck. We estimate conservatively that 66% of this mixture was ULSD, though probably a lesser fraction. We have collected soil samples in this area, which will allow for a better estimate.

Describe Area Affected and Cleanup Action Taken.*

Near the leaking line, the subsurface area affected is approximately 5 feet square and 5 feet deep. This area was excavated to get to the leak. Contaminated soil that was excavated to find the leak is currently being stored on plastic sheeting in a staging area, awaiting final disposition. The pit has been back-filled as this is an extremely active area of the refinery. There is another area of approximately 10 feet by 20 feet where an oily-water mixture had pooled in the adjacent field. There is also the channel along the flow path which is approximately 250 feet in length and about 1 foot wide. Because the ground was frozen, material could not penetrate very deep into the ground. Immediately on noting the leak, the ULSD sales line was shut down and trucks moved out of the area. A vacuum truck was used to collect product emanating from the leaking underground line, while it was being isolated. The asphalt was washed down and the oily-water mixture was also collected by the vacuum truck. Material that had run off the asphalt and into an adjacent field was also collected from the depression where it had pooled. The soils in this area are stained with ULSD. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager -- Gallup	Approval Date:	Expiration Date:	
E-mail Address: Mark.Turri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 12-29-2009	Phone: 505-722-3833		

- Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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District Office in accordance
with Rule 116 on back
side of form

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2010 JAN -4 P 12: 12

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-3833
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-low Sulfur Diesel	Volume of Release 44 barrels of Ultra-low Sulfur Diesel (1848 gallons) estimate	Volume Recovered 68 barrels of an oil and water mixture (with 40 barrels or 1680 gallons of oil in the mixture) estimate
Source of Release Leaking underground pipeline at truck loading rack	Date and Hour of Occurrence 12/23/2009; 4 pm	Date and Hour of Discovery 12/23/2009; 4:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Ed Riege	Date and Hour 12/23/2009 6:30 pm (approximately)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

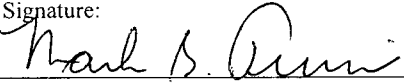
Describe Cause of Problem and Remedial Action Taken.*

At approximately 4 pm on 12/23/2009, maintenance personnel noticed Ultra-low Sulfur Diesel (ULSD) emanating from a buried pipe at the west end of the truck loading rack. Immediate action was taken to isolate the line. Soil was excavated to uncover the leaking line, and a vacuum truck was used to collect approximately 750 gallons of product from the hole around the leaking line. Later, the asphalt in the area was washed down, and approximately 700 gallons of the wash water was captured by the vacuum truck. This mixture was approximately 5% product, or 35 gallons. Some of the ULSD and water mixture had run off the truck loading rack area and into an adjacent field where it had pooled in a depression. Approximately 1400 gallons of these liquids were picked up by the vacuum truck. We estimate conservatively that 66% of this mixture was ULSD, though probably a lesser fraction. We have collected soil samples in this area, which will allow for a better estimate.

Describe Area Affected and Cleanup Action Taken.*

Near the leaking line, the subsurface area affected is approximately 5 feet square and 5 feet deep. This area was excavated to get to the leak. Contaminated soil that was excavated to find the leak is currently being stored on plastic sheeting in a staging area, awaiting final disposition. The pit has been back-filled as this is an extremely active area of the refinery. There is another area of approximately 10 feet by 20 feet where an oily-water mixture had pooled in the adjacent field. There is also the channel along the flow path which is approximately 250 feet in length and about 1 foot wide. Because the ground was frozen, material could not penetrate very deep into the ground. Immediately on noting the leak, the ULSD sales line was shut down and trucks moved out of the area. A vacuum truck was used to collect product emanating from the leaking underground line, while it was being isolated. The asphalt was washed down and the oily-water mixture was also collected by the vacuum truck. Material that had run off the asphalt and into an adjacent field was also collected from the depression where it had pooled. The soils in this area are stained with ULSD. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager – Gallup	Approval Date:	Expiration Date:	
E-mail Address: Mark.Turri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 12-29-2009	Phone: 505-722-3833		

- Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Wednesday, December 23, 2009 2:04 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV; Riege, Ed; Turri, Mark
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009
Attachments: API OVERFLOW CONTAMINATION AREA.pdf; DSCN0164.JPG

Dear Hope,

The following e-mail is a follow-up response to the e-mail that we received on December 21, 2009, in reference to the API overflow that occurred on December 8. The overflow as mentioned previously on the initial C-141 was due to inclement weather and storm conditions that passed through the area that resulted in a power loss to the Refinery. The power loss was due to "mother nature" that caused the power company to experience a loss of incoming power supplied to the Refinery, and therefore, was beyond our control. I have included a "pdf" drawing indicating the extent of the API overflow contamination area, and a picture reflecting this area as well.

The extent of the API overflow contamination was similar to the one that was experienced on September 5, 2009 except that the overflow on December 8, 2009 did not reach the lagoons due to the road berm that was constructed previously. When the power was lost, the Refinery did not have any operational controls that could retard or restrict the effluent flow to the API. The liquid began coming out of the overflow spouts as noted previously on the C-141. The API is bordered by a road between the Aeration Basins/Lagoons and the API on the west side of the API that acted as a containment preventing overflows from reaching the basins or lagoons. The road also extends past the Baker frac tank which is used to catch API overflows during brief periods. This road in conjunction with the natural levee on the east side creates a containment area so as to localize any API overflow that may occur. The road base, the containment, and the surrounding soil in the areas of the API are primarily clay. Any environmental impact due to API overflow (primarily water) is minimized due to the permeability of this containment and the surrounding soils in the API and Baker tank areas.

Attached is the proposed sampling plan for the API Overflow area. Please provide the required analysis that the agency is requiring for this event.

Sincerely,
Beck Larsen

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Monday, December 21, 2009 9:22 AM
To: Larsen, Thurman; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Cobrain, Dave, NMENV; Riege, Ed; Van Horn, Kristen, NMENV
Subject: RE: Initial Report (C-141) for API Spill of December 8, 2009

Beck

Please provide NMED with a drawing showing the extent of this release, include any photographic documentation if there is any. Include a detailed description of the areas the release covered and clarify if the release entered into the Aeration Lagoons, Evaporation Ponds 1 and 2? If the release entered the Aeration Lagoons or the Evaporation Ponds, describe all cleanup activities. Submittal of this information by email is acceptable.

Thanks
Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Friday, December 18, 2009 6:11 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Subject: Initial Report (C-141) for API Spill of December 8, 2009

Dear Hope, Carl, and Brandon,

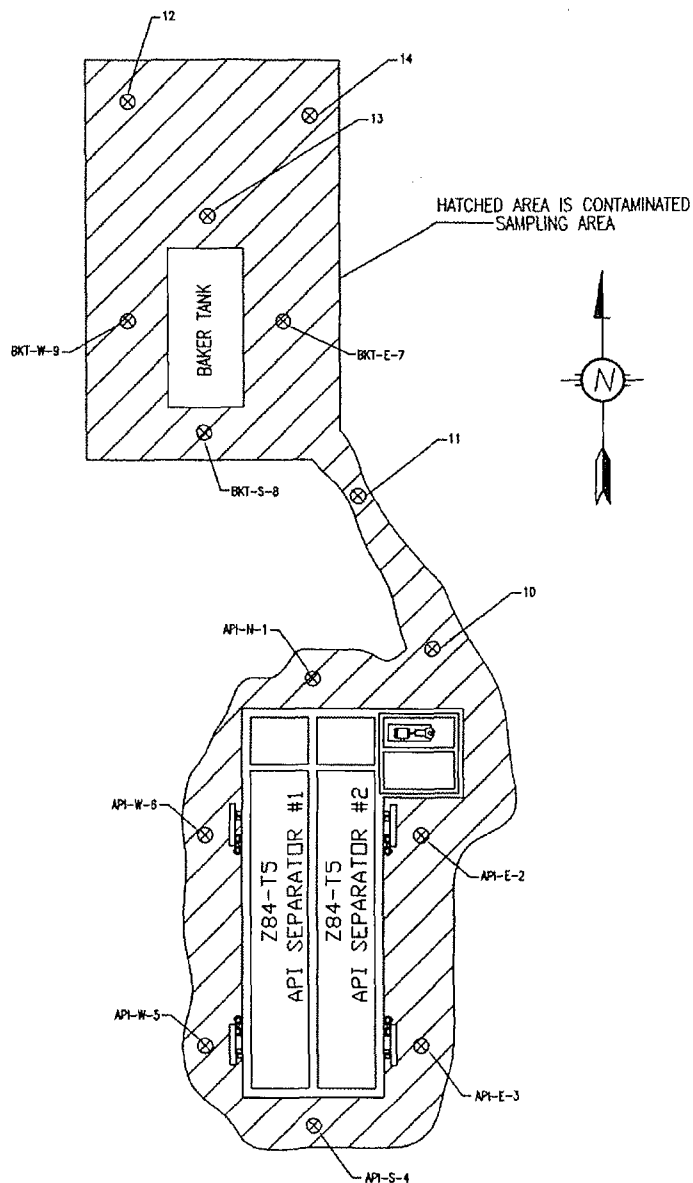
The following attachment is for the API Spill that occurred on December 8, 2009 due to a winter storm that caused a power outage at Western Refining (Gallup Refinery). Initial cleanup has been completed. Please contact me if you require additional information.

Sincerely,
Beck Larsen

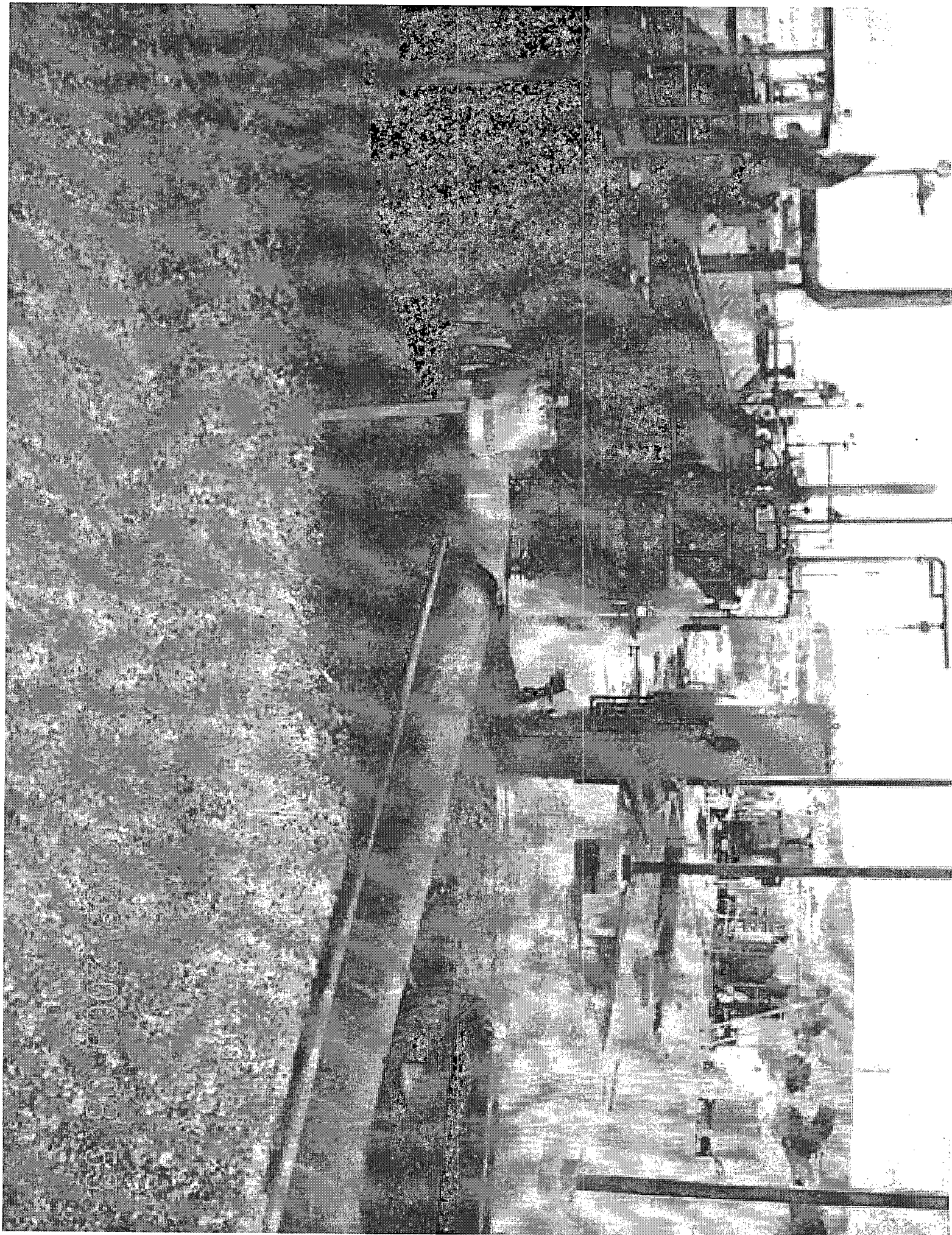
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PROPOSED SAMPLING PLAN
API OVERFLOW ON 12/8/09



Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Friday, December 18, 2009 6:11 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Subject: Initial Report (C-141) for API Spill of December 8, 2009
Attachments: C-141 Initial_120809.pdf

Dear Hope, Carl, and Brandon,

The following attachment is for the API Spill that occurred on December 8, 2009 due to a winter storm that caused a power outage at Western Refining (Gallup Refinery). Initial cleanup has been completed. Please contact me if you require additional information.

Sincerely,
Beck Larsen

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

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1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen	
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No. (505) 722-0258	
Facility Name Gallup Refinery	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 739 bbls (API oily water)	Volume Recovered >720 bbls (API oily Water)
Source of Release API UNIT	Date and Hour of Occurrence 12/08/2009; 0300 hrs	Date and Hour of Discovery 12/05/2009; 0300 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED (Carl Chavez, Steve Conley, Hope Monzeglio)	
By Whom? Beck Larsen	Date and Hour 12/08/2009 / ~ 1030 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

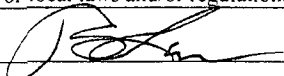
Describe Cause of Problem and Remedial Action Taken.*

At or about midnight on Tuesday, December 8, a winter storm passed through the area precipitating heavy snow and high winds. Due to this event at 0300 hrs (December 8), a plant wide electrical power failure occurred to all units throughout the facility. After a thorough power distribution evaluation, the cause of this incident was found to be resultant of several power glitches or amperage line deviations from Tristate Power Company in Albuquerque. As a result of high winds in the Albuquerque area, several power deviations occurred between 0241 to 0249 hours causing two power lines to slap together creating a Phase A / Phase C power line short at the Tristate distribution center or substation. These power glitches were transmitted to Western Refinery (Gallup Refinery) as an incoming line fluctuation or line distortion in amperage. This transmitted to a decrease in amperage of 15 to 20 percent. This distortion caused two of compressors to go off line initiating a plant wide electrical power failure to all units. After all information was collected from various sources, it was estimated that due to this power failure, the API incurred intermittently overflowed for about 10 to 12 hours. An onsite vacuum truck was immediately dispatched during this event in order to minimize and spread of contamination and to begin cleanup operations. No injuries were incurred during this event as a result of this power failure.

Describe Area Affected and Cleanup Action Taken.*

The affected area was localized around the API and baker frac tank containment areas. Initial cleanup efforts began immediately on Tuesday, December 8, 2009 during this event utilizing an onsite vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area in order that contamination would not spread. Initial cleanup efforts were completed on Monday, December 14, 2009. All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Final cleanup of this area will be determined based on laboratory analysis.

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

Signature: 
Printed Name: Beck Larsen

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/18/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary



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

ION GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

October 27, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

**SUBJECT: SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW REPORT
WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY
EPA ID NO. NMD000333211
HWB-GRCC-MISC**

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) received the Western Refining Southwest Inc., Gallup Refinery (the Permittee) Report summarizing the overflow and interim measures remedial actions at the API separator on September 5, 2009. The Permittee collected ten soil samples and presented the analytical results in a table titled "Hall Environmental Laboratory Data Summary." The analytical results identified diesel range organics (DRO) extended (which include motor oil range organics (MRO)) ranging from 229 mg/kg to 11,000 mg/kg, all exceeding the NMED's Total Petroleum Screening (TPH) Guidelines of 200 mg/kg for "unknown oil." NMED compared the cumulative values of the DRO and MRO detections when comparing the values to the NMED TPH standard for unknown oil of 200 mg/kg (e.g., sample BKT-E-7 had a DRO detection of 150 mg/kg and a MRO detection of 79 mg/kg with a cumulative value of 229 mg/kg). Because the release came from the API separator, the exact source(s) of the hydrocarbons are unknown.

Mr. Ed Riege
Gallup Refinery
October 27, 2009
Page 2 of 2

The Permittee must complete additional cleanup activities as follows:

- a. The Permittee must remove additional contaminated soils in the vicinity of the API Separator and the Baker Tank within the hatched area identified in the "Sampling Plan" figure (attached).
- b. The Permittee must collect confirmation samples from the approximate locations of all of the former sampling locations with the exception the roll-off box location. The Permittee must also collect samples from the additional sample locations identified in the attached figure. All samples must be collected from the limits of the excavation not to exceed six inches in depth.
- c. All confirmation samples must be analyzed for DRO extended. In addition, samples collected from locations API-E-2 and BKT-E-7, BKT-S-8, and BKT-W-9 must also be analyzed for gasoline range organics.
- d. The confirmation samples must not exceed organics concentrations of 200 mg/kg, if such concentrations exceed 200 mg/kg then additional soil removal will be required until detected concentrations are less than 200 mg/kg.
- e. The Permittee must submit a report (letter format is acceptable) that describes the additional soil clean up activities, explains how additional contaminated soil was removed, describes how confirmation samples are collected and documents the disposal of the contaminated soils. The Permittee must also include all analytical data in table format, copies of the final laboratory reports, and include a figure that identifies the locations of all confirmation samples.

Mr. Ed Riege
Gallup Refinery
October 27, 2009
Page 3 of 3

The Permittee must submit the report to NMED on or before February 1, 2010. If you have questions please contact Hope Monzeglio of my staff at 505-476-6045.

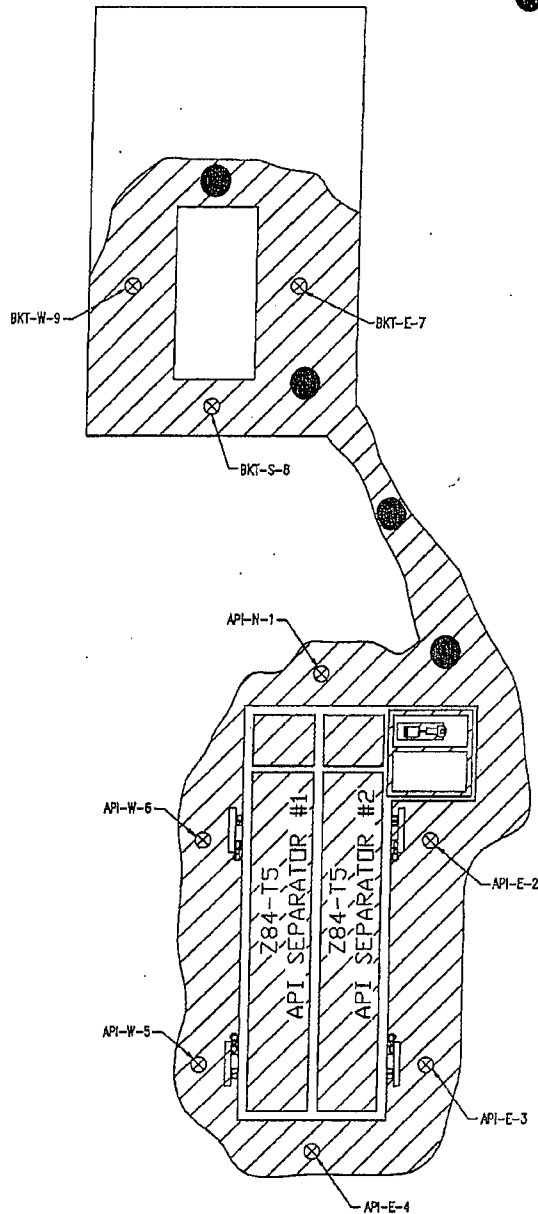
Sincerely,

A handwritten signature in black ink, appearing to read "John E. Kielling". The signature is fluid and cursive, with the first name "John" being the most prominent part.

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

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, NMEMNRD OCD
File: Reading GRCC 2009
GRCC-MISC

● Approximate additional
confirmation sample locations



SAMPLING PLAN

(API OVERFLOW) ON 09/05/09

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

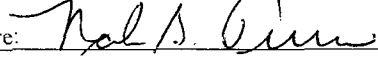
Type of Release Suspected historical release of hydrocarbons recently washed into a ditch by rainfall – based on smell of diesel, possible oil sheen on liquids	Volume of Release 30 barrels (1,200 gallons) estimated of oily water – the hydrocarbon content is much lesser	Volume Recovered 0 barrels
Source of Release It appears that a rain event may have picked up hydrocarbons absorbed onto surface/ subsurface soils from historical spills and collected in a ditch running east to west at the north-west end of the hill on which the refinery is located	Date and Hour of Occurrence Within past 10 - 15 days (approximately)	Date and Hour of Discovery 10/19/2009; 1:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen	Date and Hour 10/20/2009 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* At approximately 1:30 pm on 10/19/2009, during a routine walk-through of arroyos and ditches in a field that lies immediately north of the hill on which the refinery is located, a ditch containing non-moving water was found to have some possible hydrocarbon staining – suspected from color of the water and smell of diesel.

Describe Area Affected and Cleanup Action Taken.* The affected area has a surface area less than approximately 150 square feet with some vertical penetration of the (possible) hydrocarbons to an as yet unknown depth. We plan to collect water and sludge samples, then pick up the water using a truck with a vacuum pump. We will then wait to see if the water reappears and is a continuous seep, or an occurrence caused by a rain event. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Mark B. Turri	Approved by District Supervisor:	
Title: Refinery Manager – Gallup	Approval Date:	Expiration Date:
E-mail Address: mturri@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10-20-2009 Phone: 505-722-3833		

• Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Thursday, October 22, 2009 1:18 PM
To: Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Kieling, John, NMENV; Larsen, Thurman
Subject: RE: C-141 for possible release of hydrocarbons - October 20, 2009

Dear Hope:

Many thanks for your recent e-mail. In response to your request for more information –

- 1) We have collected water and sludge samples from three locations in the ditch (that runs generally southeast-northwest) on Tuesday morning, October 20, 2009 – a) at the southeast end, b) mid-way along the ditch, and c) at the northwest end. The samples are being analyzed for – water: TPH, method 418.1; sludge: Semi-volatile Organic Compounds (SVOCs), method 8270C, metals (TCLP); and TPH (method 418.1). These are screening samples. Based on our test results, we will plan additional analyses as needed.
- 2) We collected grab samples using dedicated augers for each of the three sludge samples, and dedicated booms with cups and/or bottles for the water samples. There were no field investigation-derived wastes generated. The sample containers, preservatives, cooling requirements and holding times were as required by the test methods and the testing laboratory.
- 3) A figure showing the approximate location of the ditch is attached below. (For your reference, the ditch is somewhat west and south of OW-13. For ease of location on the larger map we have drawn it much bigger than it actually is – the length must be about 40 feet or so, and a few feet wide and deep, with the water depth being a few inches and a foot or so wide.)

Best regards,

Raj



Approximate location of ditch – not to scale

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]

Sent: Wednesday, October 21, 2009 7:54 AM

To: Rajen, Gaurav

Cc: Riege, Ed; Turri, Mark; Chavez, Carl J, EMNRD; Cobrain, Dave, NMENV; Kielling, John, NMENV

Subject: RE: C-141 for possible release of hydrocarbons - October 20, 2009

Raj

NMED would like some additional information from review of the C-141 form: 1) what analytical methods will be run on the water and sludge samples; 2) provide me with a description of how Gallup will collect the water and sludge samples; 3) provide a figure showing the location of the ditch with the stagnant water. This information can be sent via email. Let me know if you have any questions.

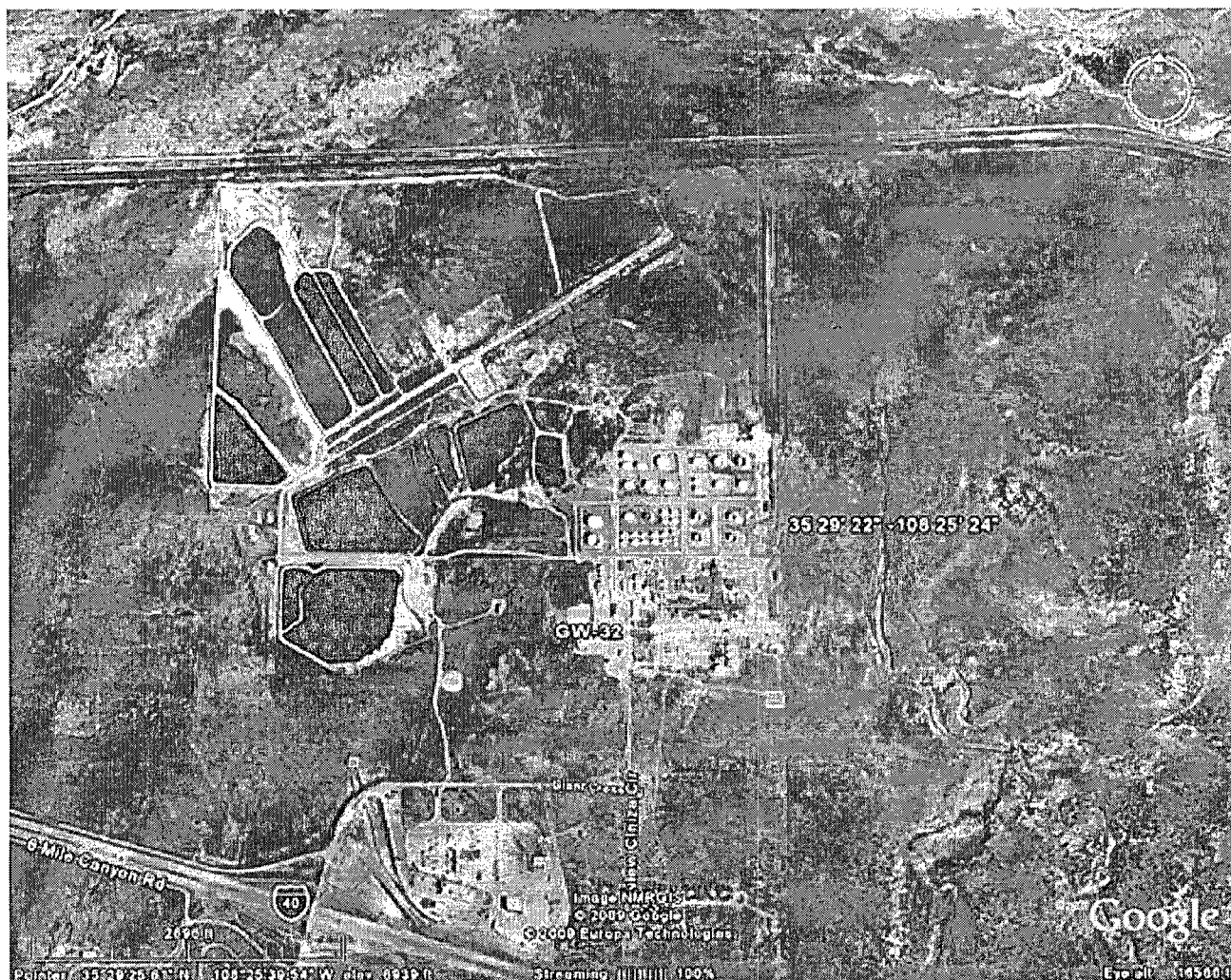
Thanks
Hope

From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 21, 2009 7:00 AM
To: Rajen, Gaurav; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark
Subject: RE: C-141 for possible release of hydrocarbons - October 20, 2009

Raj:

I like your approach to addressing this discovery and corrective action measures to vacuum fluids and monitor the reoccurrence with sheen, testing when necessary. Please use a C-141 "Final" form to document the work and the analytical results. If you notice the potential seep reoccurring, OCD recommends some shallow boring work back toward a diesel source. Please keep OCD informed. If you have had recent rains, then your preliminary observation may be correct?

I looked at the location and see that it is near a small tank area (Tk 573 NIS?) and south of the Rail Road Lagoon Rack.





Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3490
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
 (Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [<mailto:Gaurav.Rajen@wnr.com>]
Sent: Tuesday, October 20, 2009 11:07 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark
Subject: C-141 for possible release of hydrocarbons - October 20, 2009

Dear Carl and Hope:

Please find attached our C-141 form for the release we discovered yesterday, and that I informed you of via a telephone message earlier today.

Best regards,

Raj

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

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Chavez, Carl J, EMNRD

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Sent: Tuesday, October 20, 2009 11:07 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark
Subject: C-141 for possible release of hydrocarbons - October 20, 2009
Attachments: 20091020105734341.pdf

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1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

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with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
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OIL CONSERVATION DIVISION

Signature: <i>Mark B. Turri</i>	Approved by District Supervisor:	
Printed Name: Mark B. Turri	Approval Date:	Expiration Date:
Title: Refinery Manager – Gallup	Conditions of Approval:	
E-mail Address: mturri@wnr.com	Attached <input type="checkbox"/>	
Date: 10-20-2009	Phone: 505-722-3833	

- Attach Additional Sheets If Necessary

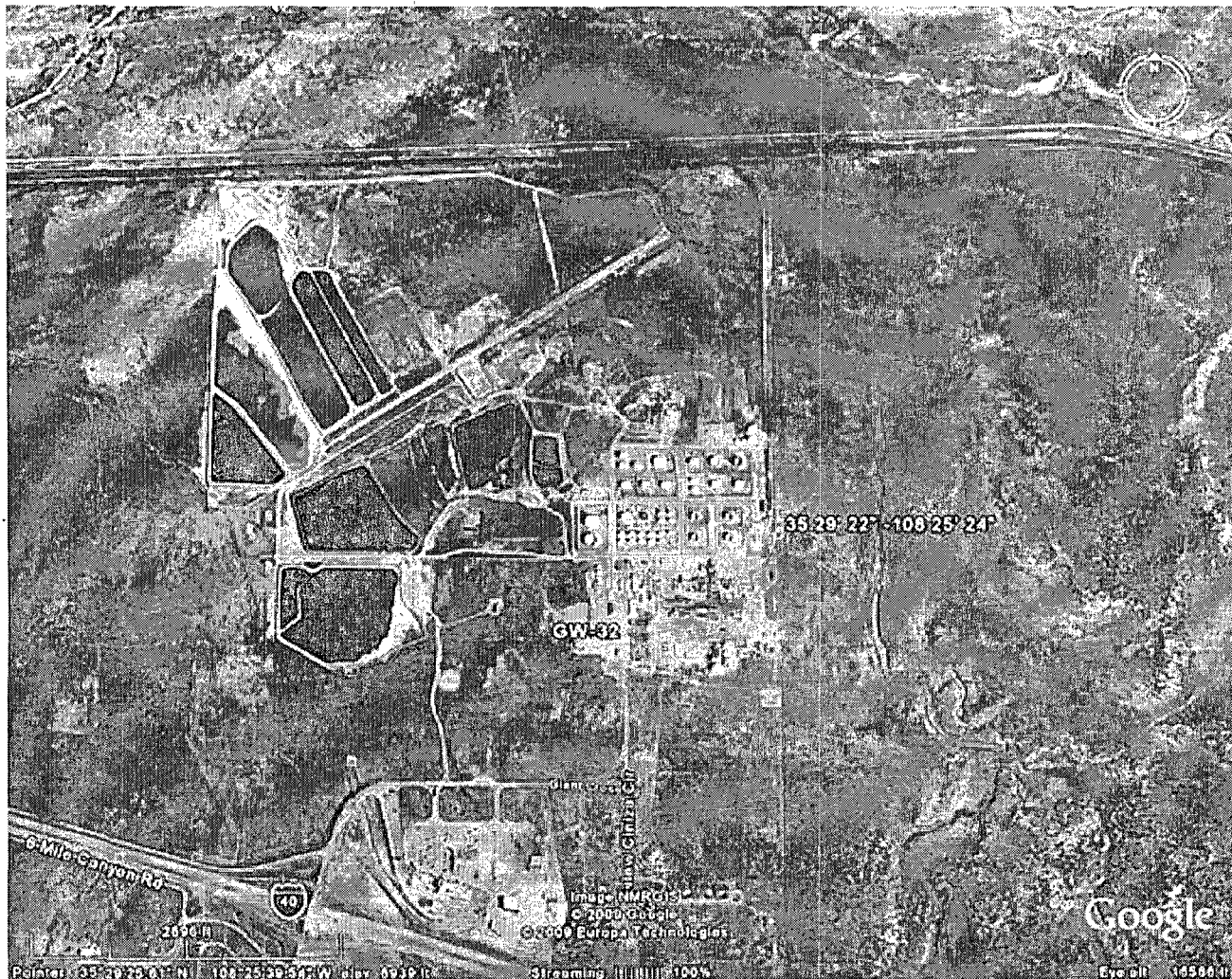
Chavez, Carl J, EMNRD

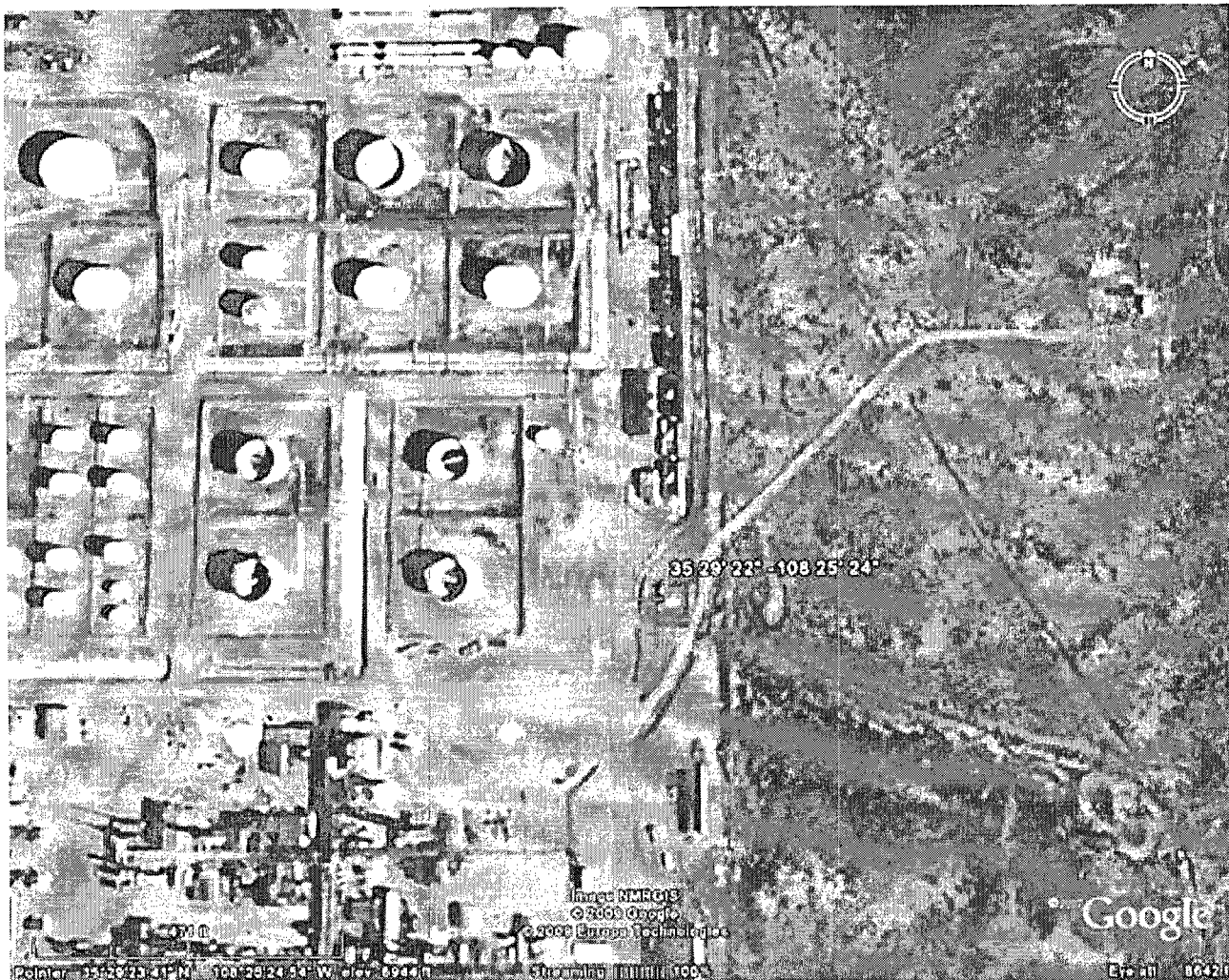
From: Chavez, Carl J, EMNRD
Sent: Wednesday, October 21, 2009 7:00 AM
To: 'Rajen, Gaurav'; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark
Subject: RE: C-141 for possible release of hydrocarbons - October 20, 2009

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Thanks.

Carl J. Chavez, CHMM
 New Mexico Energy, Minerals & Natural Resources Dept.
 Oil Conservation Division, Environmental Bureau
 1220 South St. Francis Dr., Santa Fe, New Mexico 87505
 Office: (505) 476-3490
 Fax: (505) 476-3462
 E-mail: CarlJ.Chavez@state.nm.us
 Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
 (Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [<mailto:Gaurav.Rajen@wnr.com>]
Sent: Tuesday, October 20, 2009 11:07 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
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Subject: C-141 for possible release of hydrocarbons - October 20, 2009

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Raj

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GALLUP REFINERY

WNR
LISTED
NYSE

CERTIFIED MAIL: 7008 2810 0000 4726 1673

October 16, 2009

RECEIVED
2009 OCT 19 PM 12 43

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: API OVERFLOW on SEPTEMBER 5, 2009

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter in response to a letter from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) (Hazardous Waste Bureau (HWB) (September 15, 2009) that references an API overflow which occurred on Saturday, September 5, 2009.

The following information shall address describing the nature of the event leading to and causes of the overflow event, remedial actions that were taken, and corrective action made to the API area in order to prevent future occurrence. Diagrams have been included in order to provide a visual reference of the API area, extent of contamination, and to aid in a better understanding of the event. (Refer to "API & Aeration Lagoon Diagram") Also enclosed are Release Notification Forms (C-141) (Initial and Final) Reports, NMED Correspondence (letters and e-mails), API Overflow Summary, API Sampling Plan with a Laboratory Data Summary and Hall Environmental Laboratory Analysis, and NMED Soil Screening Levels (Table A-1) for your reference and convenience.

I. THE INCIDENT- "DESCRIPTION AND CAUSES OF OVERFLOW EVENT": (Refer to "API & AERATION LAGOON DIAGRAM")

On Saturday, September 5, 2009 at 1215 hours, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1245 hours, the API began to overflow into an above ground Baker Tank that is located near the new API and is used for overflow during upset or excessive rain conditions. The API Operator began pumping from the new API to T-105/T-107 in order to divert as much water as possible from the new API. The rain slacked off from a heavy to light intensity. At 1245 hours due to continued excessive rain, the new API (both East and West) Bays began overflowing from the top hatches of and from two overflow spouts (located on the north end of the API).

The Environmental Department/Qualified Individual (QI) was notified at 1320 hours. The QI arrived on site at 1410 hours during the storm event. At the time of QI arrival, response personnel were in the process of simultaneous containment and remedial activities in order to minimize any environmental impact.

At approximately 1600 hrs, a second rain event began due to another thunderstorm cell passing over the facility. At approximately 1830 to 1900 hrs the new API began to overflow in the same manner as described previously due to excessive stormwater. The overflow during this second thunderstorm also lasted for about an hour. The total rainfall during these incidents was about 1.6 inches based on the Process Area rain gauge. The total estimated time of the overflows of both events was approximately two (2) hours.

Under normal conditions, the API can handle a minor storm event. However, during this rain event, the API began to fill to an overflow condition because the rainfall intensity was greater than the design flow for the new API. As the rainfall intensity and flow volume increased during these two events, the process and stormwater quantity exceeded the design capacity of the new API Units causing water to be forced out of the top hatches and of the overflow spouts.

During this storm event, the API overflow was concentrated around the new API and Baker overflow tank containment area due to the increased height of the roadway construction as a result of prior modification activities. The berm that was created due to previous road maintenance separated any overflow coming from the API area from reaching Aeration Lagoon #1. Also, some API overflow went along the backside of the new API into the API overflow Baker frac tank containment area. The overflow was either isolated around the new API area or contained in the API overflow tank containment area. As a result of this storm event, oil or oily sheen was found around the API area and the API overflow tank containment area.

The total volume released to the environment was based on the best engineering methodology available and the information supplied by on-site personnel. The methodology utilized for this determination will be discussed below under a separate category.

II. THE VOLUME OF OVERFLOW and HOW IT WAS DETERMINED- "QUANTITY ESTIMATION AND BEST ENGINEERING METHODOLOGY" (Refer to "API OVERFLOW SUMMARY")

The quantification of the amount of API overflow was determined using various methodologies and Best Engineering Practices available during this event. These methodologies and Best Engineering Practices were used in order to make a reasonable quantification that included such items as conversations with facility personnel, vacuum truck logs, available diagrams or drawings, best approximations or assumptions at the time of the event, and any available data records collected during and after this event. A combination of these methods had to be used in order to make a reasonable determination or estimation of the volumes from the API overflow.

Various engineering principles that were used in order to make a reasonable quantification included material balance (flow in = flow out) in conjunction with basic hydrologic principles. First, an approximation or assumption of the amount of "oil" on the API at any given time was used. The quantity of oil can be exaggerated due to the inability of being able to open the API at any given time in order to ascertain an accurate measurement of its level. This level or quantity was assumed

to be released out of the API at the time of overflow. This assumption probably was an over estimation of the actual quantity of oil that was in the API at the time of overflow and that was actually released. It was assumed that the entire quantity of oil as determined above was actually released from the API. Next, a material balance was used to determine the required flow into and out of the API at the time of the overflow. One of the elements of the material balance requires rainfall and Process Unit run off data in order to ascertain flow input to the API based on hydrologic principles.

It was estimated that a total of 6.6 bbls of oil was discharged to the ground at the termination of the API overflow. Approximately 4.6 bbls of oil was recovered as a result of the vacuum truck remediation during this event. There was approximately 2 bbls that was not recovered or not accounted for in the calculations based on the information available. These values are approximated based on material balance and other engineering principles and are as accurate as the available known information.

Vacuum truck data was used in the determination of oil and oil/water mixture volumes at the time of the overflow. A vacuum truck log was used to determine the amount of oil/water mixture recovered. The amount of oil (percentage) in the API at the time of the overflow was applied to this mixture in order to quantify or estimate the quantity of oil recovered. It was determined that approximately 1320 bbls of the oily/water mixture was recovered from the vacuum truck operation based on the number of loads retrieved and from a known quantity per load. The amount of oil recovered from this operation was found to be approximately 4.6 bbls based on information supplied by the vacuum truck operators, API Area Operator, and best engineering methodology.

A summary of the incident using applicable methodologies for volume calculations are indicated below (Refer to "API Overflow Summary" Spreadsheet as enclosed):

Qty of Oil in API at time of Incident:	1.8 bbls
Qty of Oil from Process Unit at time of Incident:	1.3 bbls
Qty of Oil from Baker Tank Containment:	2.6 bbls
Qty of Oil Transferred to T-105/107:	0.9 bbls
- Qty of Oil Recovered (Vacuum Truck):	- 4.6 bbls
TOTAL (OIL RELEASED to the ENVIRONMENT)	6.6 bbls
Qty Oil Recovered (Vacuum Truck)	4.6 bbls
Oil Discharged to the Environment (Oil Not Recovered)	2.0 bbls

The Oil discharged to the environment was based on the calculations from available information and could not be determined at a more accurate value. Operation personnel removed as much oil as possible during the cleanup operation. The remainder of the oil was removed in the clay as part of the remediation project.

III. CLEANUP ACTIVITIES- "REMEDIATION ACTIVITIES/ CLEANUP OPERATIONS": (Refer to "API & AERATION LAGOON DIAGRAM")

Cleanup operations were immediately initiated after the first rain cell passed over the facility in order to minimize the environmental impact. Western Refining recently purchased a vacuum truck for onsite use instead of utilizing outside contractor equipment and their personnel. After the first

rain cell passed over the facility, the vacuum truck was immediately deployed in order to begin vacuuming up any oil/water liquids from the affected areas as a part of initial cleanup efforts.

Maintenance also began soil remediation around the API, Baker Tank, and associated areas by removing approximately 1 to 2 inches of contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels as required. Cleanup and remedial activities terminated on September 14, 2009. After completion of all remedial activities, the Refinery Environmental Department proceeded to collect ten (10) core samples of the material in the area of potential contamination.

IV. HAZARDOUS WASTE POTENTIALLY RELEASED TO THE ENVIRONMENT- (Refer to "HALL ENVIRONMENT LABORATORY DATA SUMMARY", and "HALL ENVIRONMENTAL LABORATORY DATA REPORTS", and "NMED SOIL SCREENING LEVEL (Table A-1)" as Enclosure)-

Hall Environmental Laboratories analyzed the ten (10) core samples. After remediation of the overflow was completed, samples were collected on September 16, 2009. Final analysis was received on October 8, 2009. The data from these samples were put on an excel spreadsheet in order to provide a comparison of data points in order to compare against the New Mexico Environmental Department- Hazardous Waste Bureau (NMED-HWB) Industrial Soil Screening Levels for Cleanup Operations. The comparison between actual analytical and the Industrial Soil Cleaning Levels as established by the New Mexico Environmental Department- Hazardous Waste Bureau (NMED-HWB), clearly reflect that our soil cleanup was complete and that there was minimal environmental impact. However, as the regulations specify, this cleanup material will by definition, be classified as a Hazardous Waste (Specific and Non-Specific Sources) (K051, F037, F038) for disposal purposes.

V. DEMONSTRATION OF SUESSFUL SPILL CLEANUP- LABORATORY DATA ANALYSIS (Refer to HALL ENVIRONMENT LABORATORY DATA SUMMARY, and HALL ENVIRONMENTAL LABORATORY DATA REPORTS, and NMED SOIL SCREENING LEVEL (Table A-1) as Enclosure)

A "Sampling Plan" was first devised as directed by the New Mexico Environmental Department- Hazardous Waste Bureau (NMED-HWB) in response to the letter of September 15, 2009. The Environmental Department proceeded to collect ten (10) core samples of the material in the area of potential contamination on September 17, 2009. These ten (10) soil samples were then submitted to Hall Environmental Laboratories to be analyzed for the following parameters: RCI, RCRA Eight (8) Metals, Total Petroleum Hydrocarbon (TPH) using Method 8015B to include Gasoline Range Organics (GRO) and Diesel Range Organics (DRO), Total Volatile Organic Compounds (Total VOC) using Method 8260. In addition, if the DRO was greater than 200 ppm, the lab was instructed to perform semi-volatile organic analysis using Method 8270 as directed by the Agency. Please note that Method 8270 for semi-volatiles was run for all ten (10) samples instead of just the ones with a DRO greater than 200 ppm.

Final data from Hall Environmental Laboratory (date of collection: 9/17/2009) was received on all ten (10) core sample points on October 9, 2009. A Hall Environmental Laboratory Data Summary is enclosed for the Agency's convenience and as matter of reference.

Laboratory data was first put on an Excel Spreadsheet for a more convenient format and comparison. Also, the NMED Soil Screen Levels (Soil Cleanup Levels) for Industrial Facilities (2006) were included on the same spreadsheet. Next, a comparison was performed between the analytical data and the NMED Soil Screen Levels to determine if further remedial action would be required or necessary. Based on this comparison from Hall Laboratory Data and the NMED Soil Screening Cleanup Levels, it was determined that "no further action" or "cleanup efforts" would be necessary or required. After all remediation and sampling was completed, the API area was again covered with clean limestone.

VI. DISPOSAL ACTIVITIES

The soil cleanup material will be shipped off for disposal in a roll-off box as Hazardous Listed Waste (Specific and Non-Specific Sources) (K051, F037, F038). The quantity that was actually remediated during this cleanup was approximately 20 to 30 cubic yards. This material will then be shipped by Rinchem to an approved landfill for proper disposal in accordance with our Oil Conservation Division (OCD) Permit (# GW-032) and in accordance with all applicable Federal, and State regulations.

VII. STEPS TO IMPLEMENT TO ENSURE THAT OVERFLOWS TO API SEPARATOR DO NOT CONTINUE TO OCCUR

All modifications and upgrades to the API area were identified after the spill of June 10, 2009 and completed. Both bays to the API were in service and fully operational at the time of the API overflow on September 5, 2009.

The API under both current and past operations has been subject to various overflow condition during excessive rain events. Western Refining has continually improved the API and surrounding areas in order to minimize possible future occurrences.

The API performance has had overflow issues during the past that may be attributed to several key issues. Some of these performance issues are as follows:

Mechanical Issues:

1. Level Indicator Failure- controls the back-up pumps at the API outlet
2. Pump Issues- cavitations, loss of suction, or blocked lines on the discharge side of the pump

Forces of Nature: (Force Majeure)

Unannounced storm events that inundate the API System; i.e. storm surges (flow into the API System) exceeds the design capacity of the API

The first two (2) mechanical issues have been resolved. All overflows are routed to a Baker Tank to be pumped out via an on-site vacuum truck. The aqueous portion of this material is later sent back to the sewer system which eventually will be rerouted back through the API System. At the time of the September 5, 2009 API overflow, all systems were operating at optimal capacity.

Force of Nature or a Force Majeure is problematic for our current API System due to the design flow characteristics. The API (both East and West Bays) have an accumulated rating of 500 gpm (design performance). During an excessive rain event or storm surge such as the one that occurred

on September 5, 2009, the API was inundated with stormwater that exceeded its design capacity. Therefore, the API began overflowing.

Western Refining is in the design phase of a new "Stormwater Diversion Project" in order to provide relief from unexpected or inundated stormwater discharges to the API System. This project will be composed of two (2) Stormwater Diversion Tanks (T-27 and T-28). This new system will connect directly into the current stormwater system in order to divert stormwater away from the Old API into Tanks (T-27 and T-28). A new twenty-four inch (24") pipe will connect the old system to the Stormwater Diversion Tanks (T-27 and T-28) The stormwater will be pumped from the diversion tanks (T-27 and T-28) to the new API.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

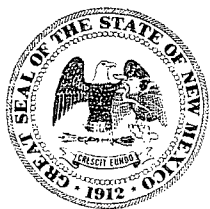
Sincerely,



Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest) (Gallup Refinery)

Enc: API & Aeration Lagoon Area Diagram
OCD (Release Notification and Corrective Action, C-141 (Initial) & Final Reports
NMED Correspondence (letter of September 15, 2009), (e-mail of September 10, 2009)
API Overflow Summary for September 5, 2009
API Sampling Plan, Hall Environmental Laboratory Data Summary, Hall Environmental
Laboratory Data Reports (Sampled on September 16, 2009)
NMED Soil Screening Levels (Table A-1)

Cc: Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager
File



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

September 15, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

**SUBJECT: FORMAL REPORT SUBMITTAL TO THE
SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW
WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY
EPA ID NO. NMD000333211
HWB-GRCC-MISC**

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) requires Western Refining Southwest Inc., Gallup Refinery (the Permittee) to submit a formal report summarizing the events and actions taken to address the API separator overflow which occurred on September 5, 2009. This spill released K051, F038, and potentially D018 hazardous wastes into the environment. As a reminder, the Permittee must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link:
<http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf>.

The Permittee met the 24-hour oral reporting requirements by contacting Steve Connolly, the NMED Incident Response Coordinator. When reporting all future spills, the facility may continue to contact Steve Connolly; however, the Permittee must also contact the Project Leader for Gallup (Hope Monzeglio) of the Hazardous Waste Bureau.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 28	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.6 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

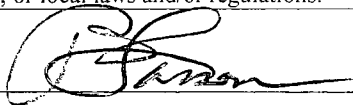
On Saturday, September 5, at about 1200 to 1230 hrs, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs once again, a second rain event began due to a secondary thunderstorm cell passing over the facility. The new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 11-14, 2009.

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

Signature:



Printed Name: Beck Larsen

OIL CONSERVATION DIVISION

Approved by District Supervisor:

Title: Environmental Engineer	Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/16/2009 Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29'030'' Longitude 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.5 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

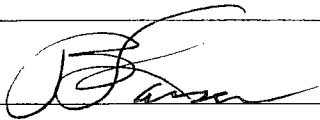
Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5 at approximately 1143 hrs, Off-site personnel began bypassing filters and weir box in preparation for a possible rain event. At about 1200 to 1230 hrs, Saturday, September, 5, 2009, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The API Operators began pumping from the new API to T-105/T-107 in order to remove as much water as possible from the API. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs a second rain event began due to a secondary thunderstorm cell passing over the facility. Once again, the new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 10, 2009.

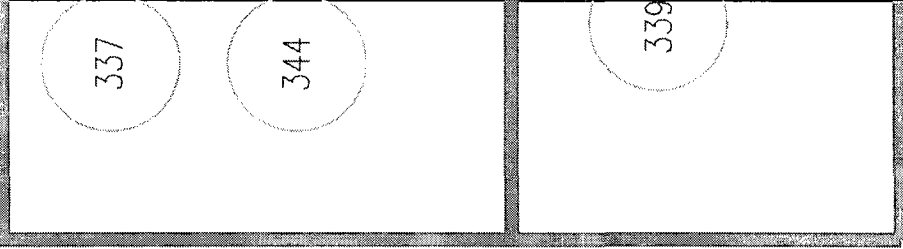
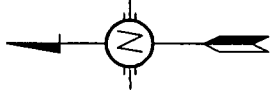
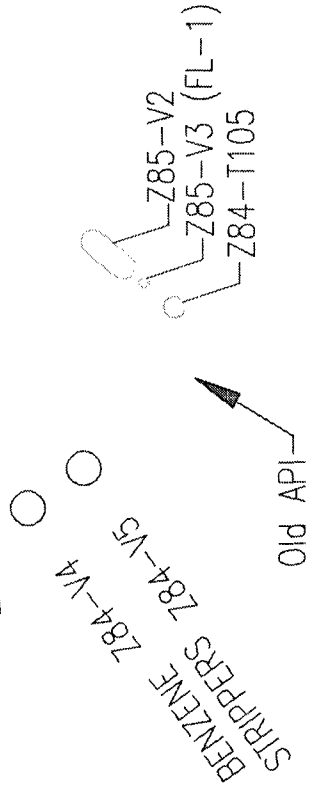
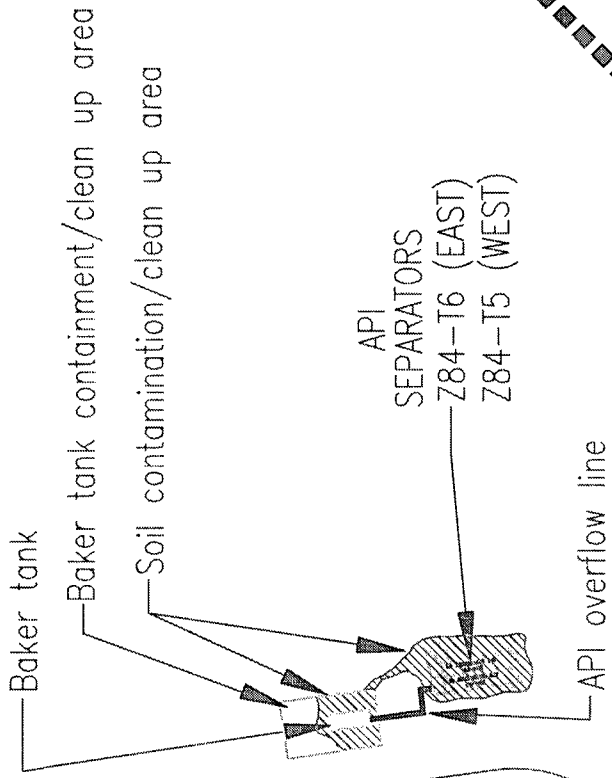
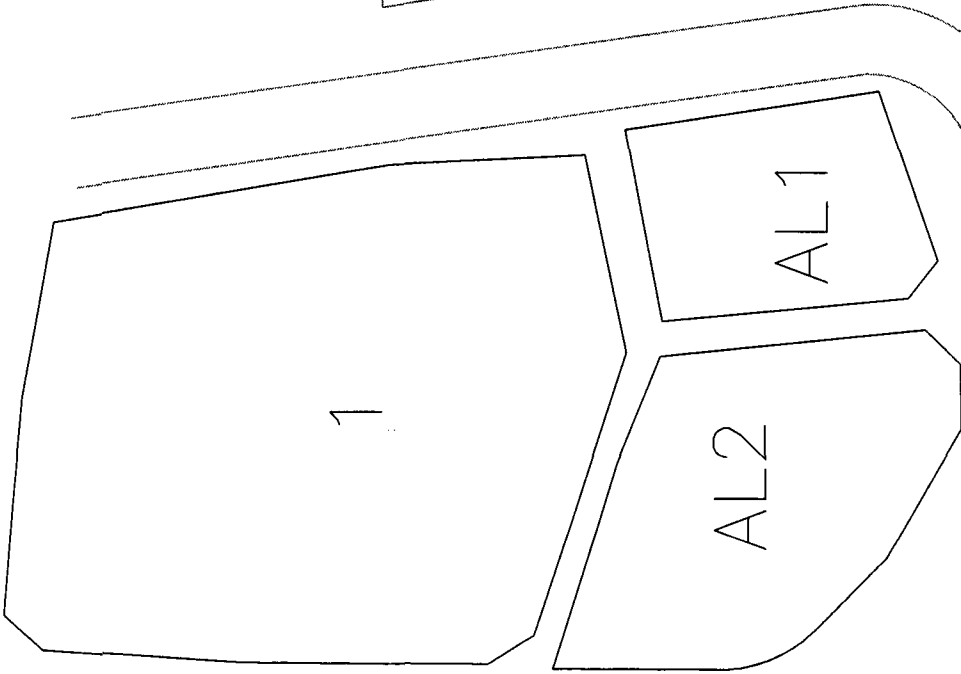
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wvir.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/21/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

AERATION LAGOONS

REFERENCE DRAWINGS



Western Refining
Gallup Refinery

API & AERATION LAGOON AREA

REV.	DESCRIPTION	DATE	CHK'D	APP'D	SCALE	DATE	CHK'D	APP'D
1	ISSUED	11/09/97	CLM		1/128" = 1'-0"	11-11/98	CLM	
2	REVISION							
3	REVISION							
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Larsen, Thurman

From: Monzeglio, Hope, NMENV [hope.monzeglio@state.nm.us]
Sent: Thursday, September 10, 2009 4:02 PM
To: Larsen, Thurman; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Subject: 9_5_09 API Overflow

Beck

This e-mail is to address the September 5, 2009 API separator overflow. The hazardous wastes released during the API separator overflow include K051, F038, and potentially D018. In addition to the C-141 form, Gallup must also submit a formal report. The formal report must describe the incident (how it occurred), describe all clean up actions, discuss where contaminated soils were stockpiled, explain what actions were completed to demonstrate that cleanup is complete, identify where all waste was or will be disposed, discuss how Gallup determined the volume of the release, and include what actions Gallup will be implementing to ensure overflows to the API do not continue to occur. NMED will follow up this e-mail with a written letter. Gallup must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link:
<http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf>

Please let me know if you have any questions.

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

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Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the MessageLabs Email Security System.

9/11/2009

Larsen, Thurman

From: Monzeglio, Hope, NMENV [hope.monzeglio@state.nm.us]
Sent: Tuesday, September 15, 2009 3:32 PM
To: Larsen, Thurman
Cc: Dorsey, Alvin; Cobrain, Dave, NMENV
Subject: RE: API Overflow on September 5, 2009 - Sampling & Analysis / CONFIRMATION SAMPLING

Beck

Item 1 Roll-off Containers - NMED has no changes.

Item 2 and Item 3 - NMED is assuming these are confirmation samples to show the contamination has been removed. Collect these samples from 0 to 6 inches below ground surface. The samples must be analyzed using EPA Method 8260 (totals, volatile organic compounds), gasoline range organics and diesel range organics (DRO) extended using EPA method 8015B, and RCRA 8 metals. If DRO is greater than 200 ppm, the sample must also be analyzed for EPA Method 8270 (semi-volatile organics).

Let me know if you have additional questions.

Hope

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Tuesday, September 15, 2009 1:07 PM
To: Monzeglio, Hope, NMENV
Cc: Dorsey, Alvin
Subject: API Overflow on September 5, 2009 - Sampling & Analysis / CONFIRMATION SAMPLING

Dear Hope,

As per our discussion this morning, we will be sampling the API overflow areas, API Overflow Tank Containment Area, and the roll-off box as described below:

Potential Sampling Areas

1. ROLL-OFF CONTAINERS-

We are planning to collect one (1) core sample in the roll-off box in the most contaminated area of the remediated material. The sample will be collected from about 1 foot depth. We are going to have it tested for the following: RCI, TCLP Voas (Method 1311/8260), and TPH (Method 8015B). (Total 1 core sample collected at 1 foot depth)

2. API AREA:

We are also planning to collect 2 core samples (approximately 1 foot in depth) each on the East and 2 core samples West sides of the API each approximately 12 to 15 feet apart. Also, we are planning to collect two (2) additional samples North and South of the API; one (1) on the North side (near center), one (1) on the South side (near center). Again, we will be testing for RCI, TCLP Voas (Method 1311/8260), and TPH (Method 8015B). (Total 6 core samples)

3. API OVERFLOW (BAKER FRAC) TANK CONTAINMENT AREA:

We are also planning to collect three (3) additional samples around the Baker Frac Tank Containment Area: one (1) on the South side, one (1) on the East side, and one (1) on the West. Again, we will be testing for RCI, TCLP Voas (Method 1311/8260), and TPH (Method 8015B). (Total 3 core samples)

TOTAL SAMPLES COLLECTED: Total- 10 Core Samples

Please let me know if these analysis and sample points will be sufficient for NMED or if NMED required additional testing or sample point collection. Please let me know as soon as you can so that I can schedule the sample collection.

Sincerely,
 Beck Larsen

9/15/2009

Larsen, Thurman

From: Rajen, Gaurav
Sent: Friday, October 16, 2009 6:40 AM
To: Riege, Ed; Larsen, Thurman
Subject: FW: API separator overflows

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Thursday, October 15, 2009 4:08 PM
To: Rajen, Gaurav
Cc: Cobrain, Dave, NMENV
Subject: RE: API separator overflows

Raj

Thanks for the information, I will let you know if I have any additional questions.

Hope

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Thursday, October 15, 2009 4:04 PM
To: Monzeglio, Hope, NMENV
Cc: Cobrain, Dave, NMENV; Riege, Ed; Larsen, Thurman
Subject: API separator overflows

Dear Hope:

Sorry for the delayed response but I have Wednesdays off and I had an environmental software engineer onsite today. Key reasons in the past were - 1) failure of level indicators within the API separator – these indicators controlled when a back-up pump at the API separator outlet also turned on; 2) cavitation, loss of suction, or line blockage on the pumps that empty the API separator and send liquids to the strippers. All problems with level controllers and the pumps have been resolved. In the present circumstances, all overflows are routed to a temporary Baker Tank that is later pumped out by a vacuum truck which releases the liquids back into the sewer system.

In 2009 there have been two storm surges that swamped the old API separator's capacity (this serves as a temporary storm water holding system) and stormwater sent to the new API separator caused it to overflow onto the ground from its sealed cover. One of these incidents occurred when one of the two bays was out of service for maintenance. I hope this helps.

Best regards,

Raj

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Tuesday, October 13, 2009 2:23 PM
To: Rajen, Gaurav
Cc: Cobrain, Dave, NMENV
Subject:

Raj

Can you tell me what events at the refinery trigger the API separator to overflow?

Thanks

10/16/2009

API AREA

	(Full Capacity of API at time of Incident)
API Overflow Volume (O/W) MIXTURE=	239,142554 bbls
API Oil/Water Ratio for API=	0.00744048

Qty of OIL In API at Time of Incident=	1.8 bbls	=	75.6 gallons
Qty of Water in API at Time of Incident=	237.3 bbls	=	9966.6 gallons

FLOW FLOW VOLUME FROM PROCESS UNIT SLAB

Qty of OW FROM PROCESS UNIT SLAB=	16179.2637 bbls	
OW Ratio for Process Unit Flow=	0.00348016	
QTY of OIL from PROCESS UNIT at Time of Incident=	1.3 bbls	54.6 gallons
QTY of WATER from PROCESS UNIT at Time of Incident=	16178.0 bbls	679476.0 gallons

BAKER TANK CONTAINMENT AREA

Qty of O/W Mixture Recovered	354,96801 bbls
O/W Ratio for Baker Tank Containment Area=	0.00744048
QTY of OIL from BAKER TANK CONTAINMENT AREA at Time of Incident=	2.6 bbls
QTY of WATER from BAKER TANK CONTAINMENT AREA at Time of Incident=	352.4 bbls
	= 109.2 gallons
	= 14800.8 gallons

TRANSFER TANK (T-105/T-107)

Qty. of O/W Mixture Transferred to T-105 (Based on T-107 Gauge)	117,000 bbls	
O/W Ratio T-105	0.00744048	
QTY of Oil Transferred to T-105=	0.9 bbls	= 37.8 gallons
QTY of Water Transferred to T-105=	116.1 bbls	= 4876.2 gallons

VACUUM TRUCK RECOVERY

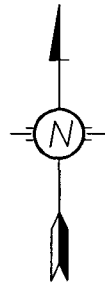
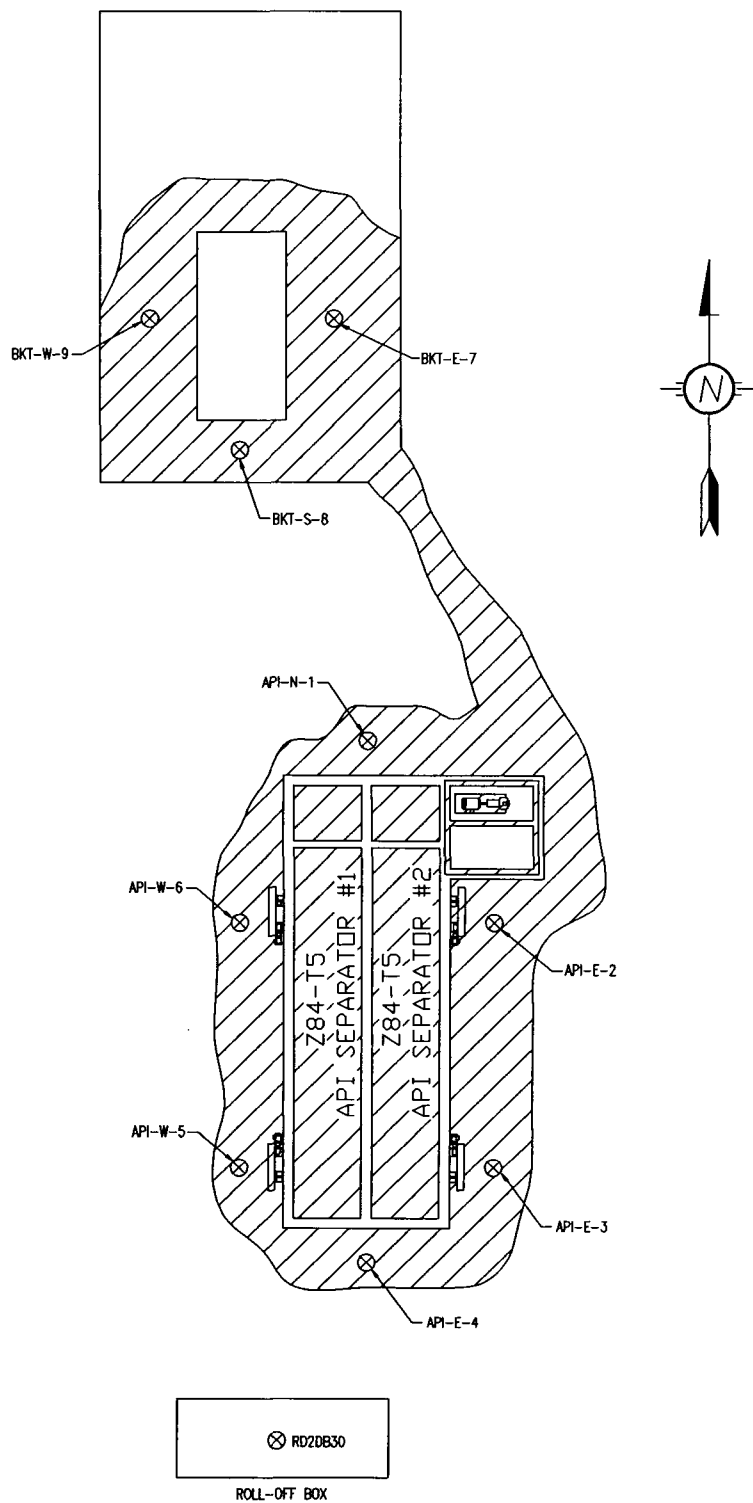
TOTAL O/W Recovered=	1320 bbls	=	55440 gallons
O/W Ratio=	0.00348016	=	
Qty of Oil Recovered	4.6 bbls	=	193.2 gallons
Qty of Water Recovered	1315.4 bbls	=	55246.8 gallons

TOTAL VOLUMES

API AREA	1.8	75.6	237.3	9966.6
FLOW FLOW VOLUME FROM PROCESS UNIT SLAB	1.3	54.6	16178.0	679476.0
BAKER TANK CONTAINMENT AREA	2.6	109.2	352.4	14800.8
TRANSFER TANK (T-105/T-107)	0.9	37.8	116.1	4876.2
VACUUM TRUCK RECOVERY (-)	4.6	193.2	1315.4	55246.8

Total	6.6	277,200	16883.8	709119.6
Recovered	4.6	193,200	1315.4	55246.8
Qty Discharged (Not Recovered or Not Accounted)	2.0	84,000	15568.4	653872.8
Water Balance to Process Drain			15568.4	653872.8

NOTE: The following calculations are based on the Best Engineering Practices using Material Balance Techniques, Manning Calculations in order to determine Volumes, flows, etc. The values are over estimated based on all known available information.



SAMPLING PLAN
(API OVERFLOW) ON 09/05/09

HALL ENVIRONMENTAL LABORATORY DATA SUMMARY

Sample ID:

ANALYTES	Units	API-N-1	API-E-2	API-E-3	API-E-4	API-W-5	API-W-6	BKT-E-7	BKT-S-8	BKT-W-9	RO 20B30	MAXIMUM CONTAMINATION FOUND	NMED SOIL SCREENING LEVELS (mg/Kg)		CLEANUP STATUS
DRO	mg/Kg	300	11000	470	6800	670	370	150	1000	180	960	11000	N/A	O.K.I	
MRO	mg/Kg			110	670		160	79		54		670	N/A	O.K.I	
GRO	mg/Kg		360					25	370	33		370	N/A	O.K.I	
Ignibilty	deg F	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	0	N/A	O.K.I	
Corrosivity	s.u.	7.59	8.41	8.55	8.58	8.02	8.02	7.61	8.17	8.55	7.59	8.58	N/A	O.K.I	
Reactivity (CN)	mg/Kg											0	N/A	O.K.I	
Reactivity (S)	mg/Kg											0	N/A	O.K.I	
METALS															
As	mg/Kg											0	17.7	O.K.I	
Ba	mg/Kg	524	599	366	459	410	389	313	483	462	364	599	100000	O.K.I	
Cd	mg/Kg											0	564	O.K.I	
Cr	mg/Kg	39	20	ND	51	14	11	7	12	9	11	51	100000	O.K.I	
Pb	mg/Kg								6			6	800	O.K.I	
Hg	mg/Kg											0	100000	O.K.I	
Se	mg/Kg											0	568	O.K.I	
Ag	mg/Kg											0	568	O.K.I	
VOLATILES															
Toluene	mg/Kg									0.68		0.68	252	O.K.I	
1,2,4-Trimethylbenzene	mg/Kg		10		0.68			1.3	7.2	0.67		10	269	O.K.I	
1,3,5-Trimethylbenzene	mg/Kg		3.9		0.62			0.6	3.3			3.9	69.2	O.K.I	
Naphthlene	mg/Kg		13									13	300	O.K.I	
1-Methylnaphthalene	mg/Kg		20	3.2								20			
2-Methylnaphthalene	mg/Kg		34	4.6	1.6							34			
n-butylbenzene	mg/Kg		1.6									1.6	62.1	O.K.I	
n-propylbenzene	mg/Kg		0.64									0.64			
sec-butylbenzene	mg/Kg		0.51									0.51			
Xylene, Total	mg/Kg							2.2	13	1.1		13	60.6	O.K.I	
													82	O.K.I	
SEMIVOLATILES															
Fluorene	mg/Kg		3.2									3.2	26500	O.K.I	
Phenanthrene	mg/Kg		20		2.1				1.4			20	20500	O.K.I	
Pyrene	mg/Kg		4.1		1.2							4.1	30900	O.K.I	
2-Methylnaphthalene	mg/Kg		73						19			73			
Naphthlene	mg/Kg		16									16	300	O.K.I	

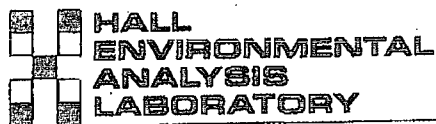
NOTE: BLANKS indicate a Non-detect (ND).

"Light Blue" color area highlights (DRO" REQUIRED); IF DRO> 200 ppm, 8270 method was to be run. However, Method 8270 (Semi-volatiles was run on ALL sample points)

"Yellow" color area highlights the maximum contaminant for a particular sample ID above

"Green" highlights the NMED Soil Screen Levels (mg/Kg) for Industrial Facilities for a particular contaminant

"Brown" (CLEANUP STATUS) indicates that cleanup was sufficient based on NMED Soil Screening Levels for Industrial Facilities



COVER LETTER

Thursday, October 08, 2009

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sample Points

Order No.: 0909356

Dear Thurman B. Larsen:

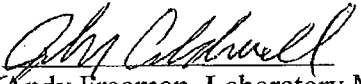
Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 9/17/2009 for the analyses presented in the following report.

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,


For Andy Freeman, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
Project: API Overflow Sample Points
Lab Order: 0909356

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-01

Client Sample ID: API-N-1
 Collection Date: 9/16/2009 9:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	300 ✓	100		mg/Kg	10	9/23/2009 11:30:27 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/23/2009 11:30:27 AM
Surr: DNOP	0	61.7-135	S	%REC	10	9/23/2009 11:30:27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	9/24/2009 4:30:37 AM
Surr: BFB	85.2	65.9-118		%REC	5	9/24/2009 4:30:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-01

Client Sample ID: API-N-1
 Collection Date: 9/16/2009 9:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 5:41:44 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 5:41:44 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 5:41:44 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 5:41:44 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 5:41:44 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 5:41:44 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 5:41:44 PM
Surr: 2,4,6-Tribromophenol	50.2	35.5-141		%REC	1	10/6/2009 5:41:44 PM
Surr: 2-Fluorobiphenyl	42.9	30.4-128		%REC	1	10/6/2009 5:41:44 PM
Surr: 2-Fluorophenol	32.8	28.1-129		%REC	1	10/6/2009 5:41:44 PM
Surr: 4-Terphenyl-d14	37.3	34.6-151		%REC	1	10/6/2009 5:41:44 PM
Surr: Nitrobenzene-d5	43.2	26.5-122		%REC	1	10/6/2009 5:41:44 PM
Surr: Phenol-d5	34.2	37.6-118	S	%REC	1	10/6/2009 5:41:44 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 2 of 40

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-01

Client Sample ID: API-N-1
 Collection Date: 9/16/2009 9:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMI-VOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Toluene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Ethylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Naphthalene	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/18/2009 11:10:28 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/18/2009 11:10:28 PM
Acetone	ND	7.5		mg/Kg	10	9/18/2009 11:10:28 PM
Bromobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Bromoform	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Bromomethane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
2-Butanone	ND	5.0		mg/Kg	10	9/18/2009 11:10:28 PM
Carbon disulfide	ND	5.0		mg/Kg	10	9/18/2009 11:10:28 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
Chlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Chloroethane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
Chloroform	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Chloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Dibromomethane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-01

Client Sample ID: API-N-1
 Collection Date: 9/16/2009 9:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
2-Hexanone	ND	5.0		mg/Kg	10	9/18/2009 11:10:28 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/18/2009 11:10:28 PM
Methylene chloride	ND	1.5		mg/Kg	10	9/18/2009 11:10:28 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Styrene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
Vinyl chloride	ND	0.50		mg/Kg	10	9/18/2009 11:10:28 PM
Xylenes, Total	ND	1.0		mg/Kg	10	9/18/2009 11:10:28 PM
Surr: 1,2-Dichloroethane-d4	95.1	84-111		%REC	10	9/18/2009 11:10:28 PM
Surr: 4-Bromofluorobenzene	98.6	89.5-108		%REC	10	9/18/2009 11:10:28 PM
Surr: Dibromofluoromethane	89.4	90.6-123	S	%REC	10	9/18/2009 11:10:28 PM
Surr: Toluene-d8	102	76.6-106		%REC	10	9/18/2009 11:10:28 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



ENERGY LABORATORIES, INC. • 1120 S 27th St • PO Box 30916 • Billings, MT 59107-0916
Toll Free 800.735.4489 • 406.252.6325 • FAX 406.252.6069 • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-001
Client Sample ID: 0909356-01B, C, API-N-1

Report Date: 09/24/09
Collection Date: 09/16/09 09:15
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	7.59	s.u.		0.10		SW9046D	09/24/09 10:00 / clr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846.Ch.7	09/23/09 10:13 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846.Ch.7	09/22/09 08:00 / pwc
METALS TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6010B	09/23/09 15:52 / tao
Barium	524	mg/kg		5		SW6010B	09/23/09 15:52 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:32 / tao
Chromium	39	mg/kg		5		SW6010B	09/22/09 22:32 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:32 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:15 / age
Selenium	ND	mg/kg		5		SW6020	09/23/09 18:58 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 18:53 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-02

Client Sample ID: API-E-2
 Collection Date: 9/16/2009 9:25:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	11000	500		mg/Kg	50	9/23/2009 4:51:28 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	9/23/2009 4:51:28 PM
Surr: DNOP	0	61.7-135	S	%REC	50	9/23/2009 4:51:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	360	100		mg/Kg	20	9/22/2009 11:26:11 PM
Surr: BFB	173	65.9-118	S	%REC	20	9/22/2009 11:26:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 6:11:17 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 6:11:17 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-02

Client Sample ID: API-E-2
 Collection Date: 9/16/2009 9:25:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 6:11:17 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 6:11:17 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 6:11:17 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 6:11:17 PM
Fluorene	3.2	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 6:11:17 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
2-Methylnaphthalene	73	13		mg/Kg	10	10/7/2009 1:26:48 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
N-Nitrosodl-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Naphthalene	16	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 6:11:17 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 6:11:17 PM
Phenanthrene	20	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Pyrene	4.1	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 6:11:17 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:11:17 PM
Surr: 2,4,6-Tribromophenol	0	35.5-141	S	%REC	1	10/6/2009 6:11:17 PM
Surr: 2-Fluorobiphenyl	72.8	30.4-128		%REC	1	10/6/2009 6:11:17 PM
Surr: 2-Fluorophenol	39.1	28.1-129		%REC	1	10/6/2009 6:11:17 PM
Surr: 4-Terphenyl-d14	77.4	34.6-151		%REC	1	10/6/2009 6:11:17 PM
Surr: Nitrobenzene-d5	106	26.5-122		%REC	1	10/6/2009 6:11:17 PM
Surr: Phenol-d5	51.4	37.6-118		%REC	1	10/6/2009 6:11:17 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-02

Client Sample ID: API-E-2
 Collection Date: 9/16/2009 9:25:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Toluene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Ethylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2,4-Trimethylbenzene	10	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,3,5-Trimethylbenzene	3.9	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Naphthalene	13	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
1-Methylnaphthalene	20	2.0		mg/Kg	10	9/18/2009 11:38:36 PM
2-Methylnaphthalene	34	2.0		mg/Kg	10	9/18/2009 11:38:36 PM
Acetone	ND	7.5		mg/Kg	10	9/18/2009 11:38:36 PM
Bromobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Bromoform	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Bromomethane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
2-Butanone	ND	5.0		mg/Kg	10	9/18/2009 11:38:36 PM
Carbon disulfide	ND	5.0		mg/Kg	10	9/18/2009 11:38:36 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
Chlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Chloroethane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
Chloroform	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Chloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Dibromomethane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-02

Client Sample ID: API-E-2
 Collection Date: 9/16/2009 9:25:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
2-Hexanone	ND	5.0		mg/Kg	10	9/18/2009 11:38:36 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/18/2009 11:38:36 PM
Methylene chloride	ND	1.5		mg/Kg	10	9/18/2009 11:38:36 PM
n-Butylbenzene	1.6	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
n-Propylbenzene	0.64	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
sec-Butylbenzene	0.51	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Styrene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
Vinyl chloride	ND	0.50		mg/Kg	10	9/18/2009 11:38:36 PM
Xylenes, Total	ND	1.0		mg/Kg	10	9/18/2009 11:38:36 PM
Surr: 1,2-Dichloroethane-d4	105	84-111		%REC	10	9/18/2009 11:38:36 PM
Surr: 4-Bromofluorobenzene	103	89.5-108		%REC	10	9/18/2009 11:38:36 PM
Surr: Dibromofluoromethane	91.5	90.6-123		%REC	10	9/18/2009 11:38:36 PM
Surr: Toluene-d8	95.9	76.6-106		%REC	10	9/18/2009 11:38:36 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



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Toll Free 800.735.4489 • 406.252.6325 • FAX 406.252.6069 • eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0809356
Lab ID: B09091942-002
Client Sample ID: 0909356-02B, C, API-E-2

Report Date: 09/24/09
Collection Date: 09/16/09-09:25
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.41	as.u.		0.10		SW9045D	09/24/09 10:00 / chr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:14 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:21 / aje
Barium	599	mg/kg		5		SW6010B	09/23/09 16:04 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:36 / tao
Chromium	20	mg/kg		5		SW6010B	09/22/09 22:36 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:36 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:17 / age
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:21 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:21 / aje

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-03

Client Sample ID: API-E-3
 Collection Date: 9/16/2009 9:35:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	470	10		mg/Kg	1	9/22/2009 4:12:47 PM
Motor Oil Range Organics (MRO)	110	50		mg/Kg	1	9/22/2009 4:12:47 PM
Surr: DNOP	91.1	61.7-135		%REC	1	9/22/2009 4:12:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	9/22/2009 11:56:39 PM
Surr: BFB	96.1	65.9-118		%REC	10	9/22/2009 11:56:39 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-03

Client Sample ID: API-E-3
 Collection Date: 9/16/2009 9:35:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 6:41:00 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 6:41:00 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 6:41:00 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 6:41:00 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 6:41:00 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 6:41:00 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 6:41:00 PM
Surr: 2,4,6-Tribromophenol	86.8	35.5-141		%REC	1	10/6/2009 6:41:00 PM
Surr: 2-Fluorobiphenyl	81.6	30.4-128		%REC	1	10/6/2009 6:41:00 PM
Surr: 2-Fluorophenol	62.6	28.1-129		%REC	1	10/6/2009 6:41:00 PM
Surr: 4-Terphenyl-d14	81.5	34.6-151		%REC	1	10/6/2009 6:41:00 PM
Surr: Nitrobenzene-d5	73.9	26.5-122		%REC	1	10/6/2009 6:41:00 PM
Surr: Phenol-d5	67.8	37.6-118		%REC	1	10/6/2009 6:41:00 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-03

Client Sample ID: API-E-3
 Collection Date: 9/16/2009 9:35:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Toluene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
1-Methylnaphthalene	3.2	2.0		mg/Kg	10	9/19/2009 12:06:45 AM
2-Methylnaphthalene	4.6	2.0		mg/Kg	10	9/19/2009 12:06:45 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 12:06:45 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 12:06:45 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 12:06:45 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-03

Client Sample ID: API-E-3
 Collection Date: 9/16/2009 9:35:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 12:06:45 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 12:06:45 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 12:06:45 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 12:06:45 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/19/2009 12:06:45 AM
Surr: 1,2-Dichloroethane-d4	96.7	84-111		%REC	10	9/19/2009 12:06:45 AM
Surr: 4-Bromofluorobenzene	99.4	89.5-108		%REC	10	9/19/2009 12:06:45 AM
Surr: Dibromofluoromethane	94.9	90.6-123		%REC	10	9/19/2009 12:06:45 AM
Surr: Toluene-d8	99.1	76.6-106		%REC	10	9/19/2009 12:06:45 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

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Toll Free 800.735.4469 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-003
Client Sample ID: 0909356-03B, C, API-E-3

Report Date: 09/24/09
Collection Date: 09/16/09 09:35
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.55	s.u.		0.10		SW9045D	09/24/09 10:00 / dr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:16 / Kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:25 / aje
Barium	366	mg/kg		6		SW6010B	09/23/09 16:08 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:40 / tao
Chromium	ND	mg/kg		5		SW6010B	09/22/09 22:40 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:40 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:19 / aje
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:25 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:25 / aje

Report
Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-04

Client Sample ID: API-E-4
 Collection Date: 9/16/2009 9:42:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	6800	100		mg/Kg	10	9/22/2009 4:49:15 PM
Motor Oil Range Organics (MRO)	670	500		mg/Kg	10	9/22/2009 4:49:15 PM
Surr: DNOP	0	61.7-135	S	%REC	10	9/22/2009 4:49:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	9/23/2009 12:27:10 AM
Surr: BFB	92.9	65.9-118		%REC	50	9/23/2009 12:27:10 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 7:10:52 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 7:10:52 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-04

Client Sample ID: API-E-4
 Collection Date: 9/16/2009 9:42:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 7:10:52 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 7:10:52 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 7:10:52 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 7:10:52 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 7:10:52 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
2-Methylnaphthalene	1.6	1.3		mg/Kg	1	10/6/2009 7:10:52 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 7:10:52 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 7:10:52 PM
Phenanthrene	2.1	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Pyrene	1.2	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 7:10:52 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:10:52 PM
Surr: 2,4,6-Tribromophenol	0	35.5-141	S	%REC	1	10/6/2009 7:10:52 PM
Surr: 2-Fluorobiphenyl	98.4	30.4-128		%REC	1	10/6/2009 7:10:52 PM
Surr: 2-Fluorophenol	54.6	28.1-129		%REC	1	10/6/2009 7:10:52 PM
Surr: 4-Terphenyl-d14	92.9	34.6-151		%REC	1	10/6/2009 7:10:52 PM
Surr: Nitrobenzene-d5	102	26.5-122		%REC	1	10/6/2009 7:10:52 PM
Surr: Phenol-d5	69.8	37.6-118		%REC	1	10/6/2009 7:10:52 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-04

Client Sample ID: API-E-4
 Collection Date: 9/16/2009 9:42:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Toluene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2,4-Trimethylbenzene	0.68	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,3,5-Trimethylbenzene	0.62	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 12:34:53 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 12:34:53 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 12:34:53 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 12:34:53 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 12:34:53 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-04

Client Sample ID: API-E-4
 Collection Date: 9/16/2009 9:42:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 12:34:53 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 12:34:53 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 12:34:53 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 12:34:53 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/19/2009 12:34:53 AM
Surr: 1,2-Dichloroethane-d4	88.8	84-111		%REC	10	9/19/2009 12:34:53 AM
Surr: 4-Bromofluorobenzene	102	89.5-108		%REC	10	9/19/2009 12:34:53 AM
Surr: Dibromofluoromethane	90.8	90.6-123		%REC	10	9/19/2009 12:34:53 AM
Surr: Toluene-d8	97.5	76.6-106		%REC	10	9/19/2009 12:34:53 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

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ENERGY LABORATORIES, INC. * 1120 S. 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eil@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909856
Lab ID: B09091942-004
Client Sample ID: 0909956-04B, C, API-E-4

Report Date: 09/24/09
Collection Date: 09/16/09 09:42
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.58	s.u.		0.10		SW8045D	09/24/09 10:00 / dir
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:18 / kip
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:30 / aje
Barium	459	mg/kg		5		SW6010B	09/23/09 16:12 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:48 / tao
Chromium	51	mg/kg		5		SW6010B	09/22/09 22:48 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:48 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:22 / aje
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:30 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:30 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-05

Client Sample ID: API-W-5
 Collection Date: 9/16/2009 9:48:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	670	100		mg/Kg	10	9/22/2009 5:25:27 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/22/2009 5:25:27 PM
Surr: DNOP	0	61.7-135	S	%REC	10	9/22/2009 5:25:27 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	9/23/2009 12:57:27 AM
Surr: BFB	95.4	65.9-118		%REC	10	9/23/2009 12:57:27 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-05

Client Sample ID: API-W-5
 Collection Date: 9/16/2009 9:48:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 7:40:46 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 7:40:46 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 7:40:46 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 7:40:46 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 7:40:46 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 7:40:46 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 7:40:46 PM
Surr: 2,4,6-Tribromophenol	76.2	35.5-141		%REC	1	10/6/2009 7:40:46 PM
Surr: 2-Fluorobiphenyl	89.9	30.4-128		%REC	1	10/6/2009 7:40:46 PM
Surr: 2-Fluorophenol	61.9	28.1-129		%REC	1	10/6/2009 7:40:46 PM
Surr: 4-Terphenyl-d14	78.7	34.6-151		%REC	1	10/6/2009 7:40:46 PM
Surr: Nitrobenzene-d5	76.6	26.5-122		%REC	1	10/6/2009 7:40:46 PM
Surr: Phenol-d5	66.1	37.6-118		%REC	1	10/6/2009 7:40:46 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-05

Client Sample ID: API-W-5
 Collection Date: 9/16/2009 9:48:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Toluene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:02:57 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:02:57 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 1:02:57 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 1:02:57 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 1:02:57 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-05

Client Sample ID: API-W-5
 Collection Date: 9/16/2009 9:48:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 1:02:57 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 1:02:57 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 1:02:57 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 1:02:57 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/19/2009 1:02:57 AM
Surr: 1,2-Dichloroethane-d4	99.4	84-111		%REC	10	9/19/2009 1:02:57 AM
Surr: 4-Bromofluorobenzene	101	89.5-108		%REC	10	9/19/2009 1:02:57 AM
Surr: Dibromofluoromethane	95.7	90.6-123		%REC	10	9/19/2009 1:02:57 AM
Surr: Toluene-d8	102	76.6-106		%REC	10	9/19/2009 1:02:57 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

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ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-005
Client Sample ID: 0909356-05B, C, API-W-5

Report Date: 09/24/09
Collection Date: 09/16/09 09:48
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.02	s.u.		6.10		SW9045D	09/24/09 10:00 / clr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch.7	09/23/09 10:20 / klp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch.7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:34 / aje
Barium	410	mg/kg		5		SW6010B	09/23/09 16:16 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:52 / tao
Chromium	14	mg/kg		5		SW6010B	09/22/09 22:52 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:52 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:24 / age
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:34 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:34 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-06

Client Sample ID: API-W-6
 Collection Date: 9/16/2009 9:58:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	370	10		mg/Kg	1	9/23/2009 7:19:55 AM
Motor Oil Range Organics (MRO)	160	50		mg/Kg	1	9/23/2009 7:19:55 AM
Surr: DNOP	108	61.7-135		%REC	1	9/23/2009 7:19:55 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	9/23/2009 1:27:48 AM
Surr: BFB	90.4	65.9-118		%REC	5	9/23/2009 1:27:48 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-06

Client Sample ID: API-W-6
 Collection Date: 9/16/2009 9:58:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 8:10:34 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 8:10:34 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 8:10:34 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 8:10:34 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 8:10:34 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 8:10:34 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:10:34 PM
Surr: 2,4,6-Tribromophenol	73.0	35.5-141		%REC	1	10/6/2009 8:10:34 PM
Surr: 2-Fluorobiphenyl	52.9	30.4-128		%REC	1	10/6/2009 8:10:34 PM
Surr: 2-Fluorophenol	31.9	28.1-129		%REC	1	10/6/2009 8:10:34 PM
Surr: 4-Terphenyl-d14	76.5	34.6-151		%REC	1	10/6/2009 8:10:34 PM
Surr: Nitrobenzene-d5	40.9	26.5-122		%REC	1	10/6/2009 8:10:34 PM
Surr: Phenol-d5	31.5	37.6-118	S	%REC	1	10/6/2009 8:10:34 PM

Qualifiers:	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Estimated value	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	

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-06

Client Sample ID: API-W-6
 Collection Date: 9/16/2009 9:58:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Toluene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:31:03 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:31:03 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 1:31:03 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 1:31:03 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 1:31:03 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-06

Client Sample ID: API-W-6
 Collection Date: 9/16/2009 9:58:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 1:31:03 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 1:31:03 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 1:31:03 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 1:31:03 AM
Xylenes, Total	ND	1.0		mg/Kg	10	9/19/2009 1:31:03 AM
Surr: 1,2-Dichloroethane-d4	97.1	84-111		%REC	10	9/19/2009 1:31:03 AM
Surr: 4-Bromofluorobenzene	99.2	89.5-108		%REC	10	9/19/2009 1:31:03 AM
Surr: Dibromofluoromethane	94.6	90.6-123		%REC	10	9/19/2009 1:31:03 AM
Surr: Toluene-d8	99.6	76.6-106		%REC	10	9/19/2009 1:31:03 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

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ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-006
Client Sample ID: 0909356-06B, C, API-W-6

Report Date: 09/24/09
Collection Date: 09/16/09 09:58
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.02	s.u.		0.10		SW9045D	09/24/09 10:00 / clr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch.7	09/23/09 10:22 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch.7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:39 / aje
Barium	389	mg/kg		5		SW6010B	09/23/09 18:20 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 22:56 / tao
Chromium	11	mg/kg		5		SW6010B	09/22/09 22:56 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 22:56 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 18:26 / aje
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:39 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:39 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-07

Client Sample ID: BKT-E-7
 Collection Date: 9/16/2009 10:10:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	150	10		mg/Kg	1	9/23/2009 7:55:20 AM
Motor Oil Range Organics (MRO)	79	50		mg/Kg	1	9/23/2009 7:55:20 AM
Surr: DNOP	99.7	61.7-135		%REC	1	9/23/2009 7:55:20 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	63	25		mg/Kg	5	9/23/2009 1:58:04 AM
Surr: BFB	145	65.9-118	S	%REC	5	9/23/2009 1:58:04 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-07

Client Sample ID: BKT-E-7
 Collection Date: 9/16/2009 10:10:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 8:40:25 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 8:40:25 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 8:40:25 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 8:40:25 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 8:40:25 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 8:40:25 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 8:40:25 PM
Surr: 2,4,6-Tribromophenol	94.3	35.5-141		%REC	1	10/6/2009 8:40:25 PM
Surr: 2-Fluorobiphenyl	99.1	30.4-128		%REC	1	10/6/2009 8:40:25 PM
Surr: 2-Fluorophenol	91.4	28.1-129		%REC	1	10/6/2009 8:40:25 PM
Surr: 4-Terphenyl-d14	88.2	34.6-151		%REC	1	10/6/2009 8:40:25 PM
Surr: Nitrobenzene-d5	104	26.5-122		%REC	1	10/6/2009 8:40:25 PM
Surr: Phenol-d5	91.8	37.6-118		%REC	1	10/6/2009 8:40:25 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-E-7

Lab Order: 0909356

Collection Date: 9/16/2009 10:10:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Toluene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2,4-Trimethylbenzene	1.3	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,3,5-Trimethylbenzene	0.60	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:59:09 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 1:59:09 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 1:59:09 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 1:59:09 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 1:59:09 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-07

Client Sample ID: BKT-E-7
 Collection Date: 9/16/2009 10:10:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 1:59:09 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 1:59:09 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 1:59:09 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 1:59:09 AM
Xylenes, Total	2.2	1.0		mg/Kg	10	9/19/2009 1:59:09 AM
Surr: 1,2-Dichloroethane-d4	98.5	84-111		%REC	10	9/19/2009 1:59:09 AM
Surr: 4-Bromofluorobenzene	105	89.5-108		%REC	10	9/19/2009 1:59:09 AM
Surr: Dibromofluoromethane	93.6	90.6-123		%REC	10	9/19/2009 1:59:09 AM
Surr: Toluene-d8	100	76.6-106		%REC	10	9/19/2009 1:59:09 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



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * elf@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-007
Client Sample ID: 0909356-07B, C, BKT-E-7

Report Date: 09/24/09
Collection Date: 09/16/09 10:10
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	7.61	s.u.		0.10		SW9045D	09/24/09 10:00 / clr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:24 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:43 / aje
Barium	313	mg/kg		5		SW6010B	09/22/09 23:00 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 23:00 / tao
Chromium	7	mg/kg		5		SW6010B	09/22/09 23:00 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 23:00 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:29 / aje
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:43 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:43 / aje

Report: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-S-8

Lab Order: 0909356

Collection Date: 9/16/2009 10:20:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	9/23/2009 8:31:02 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/23/2009 8:31:02 AM
Surr: DNOP	0	61.7-135	S	%REC	10	9/23/2009 8:31:02 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	370	100		mg/Kg	20	9/23/2009 2:28:19 AM
Surr: BFB	138	65.9-118	S	%REC	20	9/23/2009 2:28:19 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 9:10:08 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 9:10:08 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-S-8

Lab Order: 0909356

Collection Date: 9/16/2009 10:20:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 9:10:08 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 9:10:08 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 9:10:08 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 9:10:08 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 9:10:08 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
2-Methylnaphthalene	1.9	1.3		mg/Kg	1	10/6/2009 9:10:08 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 9:10:08 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 9:10:08 PM
Phenanthrene	1.4	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 9:10:08 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:10:08 PM
Surr: 2,4,6-Tribromophenol	79.6	35.5-141		%REC	1	10/6/2009 9:10:08 PM
Surr: 2-Fluorobiphenyl	86.3	30.4-128		%REC	1	10/6/2009 9:10:08 PM
Surr: 2-Fluorophenol	79.1	28.1-129		%REC	1	10/6/2009 9:10:08 PM
Surr: 4-Terphenyl-d14	85.9	34.6-151		%REC	1	10/6/2009 9:10:08 PM
Surr: Nitrobenzene-d5	114	26.5-122		%REC	1	10/6/2009 9:10:08 PM
Surr: Phenol-d5	83.7	37.6-118		%REC	1	10/6/2009 9:10:08 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

Page 30 of 40

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-08

Client Sample ID: BKT-S-8
 Collection Date: 9/16/2009 10:20:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC

EPA METHOD 8260B: VOLATILES

Analyst: DAM

Benzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Toluene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Ethylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2,4-Trimethylbenzene	7.2	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,3,5-Trimethylbenzene	3.3	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Naphthalene	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
1-Methylnaphthalene	ND	10		mg/Kg	50	9/19/2009 2:26:09 AM
2-Methylnaphthalene	ND	10		mg/Kg	50	9/19/2009 2:26:09 AM
Acetone	ND	38		mg/Kg	50	9/19/2009 2:26:09 AM
Bromobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Bromoform	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Bromomethane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
2-Butanone	ND	25		mg/Kg	50	9/19/2009 2:26:09 AM
Carbon disulfide	ND	25		mg/Kg	50	9/19/2009 2:26:09 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
Chlorobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Chloroethane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
Chloroform	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Chloromethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Dibromomethane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-08

Client Sample ID: BKT-S-8
 Collection Date: 9/16/2009 10:20:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
2-Hexanone	ND	25		mg/Kg	50	9/19/2009 2:26:09 AM
Isopropylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	9/19/2009 2:26:09 AM
Methylene chloride	ND	7.5		mg/Kg	50	9/19/2009 2:26:09 AM
n-Butylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
n-Propylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Styrene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
Vinyl chloride	ND	2.5		mg/Kg	50	9/19/2009 2:26:09 AM
Xylenes, Total	13	5.0		mg/Kg	50	9/19/2009 2:26:09 AM
Surr: 1,2-Dichloroethane-d4	103	84-111		%REC	50	9/19/2009 2:26:09 AM
Surr: 4-Bromofluorobenzene	98.2	89.5-108		%REC	50	9/19/2009 2:26:09 AM
Surr: Dibromofluoromethane	96.4	90.6-123		%REC	50	9/19/2009 2:26:09 AM
Surr: Toluene-d8	99.5	76.6-106		%REC	50	9/19/2009 2:26:09 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



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * ell@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-008
Client Sample ID: 0909356-08B, C, BKT-S-8

Report Date: 09/24/09
Collection Date: 09/16/09 10:20
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.17	s.u.		0.10		SW9045D	09/24/09 10:00 / dlr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:25 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6020	09/23/09 19:48 / aje
Barium	483	mg/kg		5		SW6010B	09/23/09 16:28 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 23:04 / tao
Chromium	12	mg/kg		5		SW6010B	09/22/09 23:04 / tao
Lead	8	mg/kg		5		SW6010B	09/22/09 23:04 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 19:36 / aje
Selenium	ND	mg/kg		5		SW6020	09/23/09 19:48 / aje
Silver	ND	mg/kg		5		SW6020	09/23/09 19:48 / aje

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-09

Client Sample ID: BKT-W-9
 Collection Date: 9/16/2009 10:40:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	180	10		mg/Kg	1	9/23/2009 9:06:42 AM
Motor Oil Range Organics (MRO)	54	50		mg/Kg	1	9/23/2009 9:06:42 AM
Surr: DNOP	88.9	61.7-135		%REC	1	9/23/2009 9:06:42 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	33	25		mg/Kg	5	9/24/2009 4:00:18 AM
Surr: BFB	112	65.9-118		%REC	5	9/24/2009 4:00:18 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-W-9

Lab Order: 0909356

Collection Date: 9/16/2009 10:40:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 9:39:49 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 9:39:49 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 9:39:49 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 9:39:49 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 9:39:49 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 9:39:49 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 9:39:49 PM
Surr: 2,4,6-Tribromophenol	81.0	35.5-141		%REC	1	10/6/2009 9:39:49 PM
Surr: 2-Fluorobiphenyl	83.8	30.4-128		%REC	1	10/6/2009 9:39:49 PM
Surr: 2-Fluorophenol	81.2	28.1-129		%REC	1	10/6/2009 9:39:49 PM
Surr: 4-Terphenyl-d14	65.5	34.6-151		%REC	1	10/6/2009 9:39:49 PM
Surr: Nitrobenzene-d5	95.0	26.5-122		%REC	1	10/6/2009 9:39:49 PM
Surr: Phenol-d5	85.8	37.6-118		%REC	1	10/6/2009 9:39:49 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-09

Client Sample ID: BKT-W-9
 Collection Date: 9/16/2009 10:40:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Toluene	0.68	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Ethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2,4-Trimethylbenzene	0.67	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Naphthalene	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 2:54:12 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	9/19/2009 2:54:12 AM
Acetone	ND	7.5		mg/Kg	10	9/19/2009 2:54:12 AM
Bromobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Bromoform	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Bromomethane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
2-Butanone	ND	5.0		mg/Kg	10	9/19/2009 2:54:12 AM
Carbon disulfide	ND	5.0		mg/Kg	10	9/19/2009 2:54:12 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
Chlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Chloroethane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
Chloroform	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Chloromethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Dibromomethane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: BKT-W-9

Lab Order: 0909356

Collection Date: 9/16/2009 10:40:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
2-Hexanone	ND	5.0		mg/Kg	10	9/19/2009 2:54:12 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	9/19/2009 2:54:12 AM
Methylene chloride	ND	1.5		mg/Kg	10	9/19/2009 2:54:12 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Styrene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
Vinyl chloride	ND	0.50		mg/Kg	10	9/19/2009 2:54:12 AM
Xylenes, Total	1.1	1.0		mg/Kg	10	9/19/2009 2:54:12 AM
Surr: 1,2-Dichloroethane-d4	103	84-111		%REC	10	9/19/2009 2:54:12 AM
Surr: 4-Bromofluorobenzene	102	89.5-108		%REC	10	9/19/2009 2:54:12 AM
Surr: Dibromofluoromethane	98.1	90.6-123		%REC	10	9/19/2009 2:54:12 AM
Surr: Toluene-d8	98.0	76.6-106		%REC	10	9/19/2009 2:54:12 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

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ENERGY LABORATORIES, INC. * 1120 S. 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * ell@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-009
Client Sample ID: 0909356-09B; C; BKT-W9

Report Date: 09/24/09
Collection Date: 09/16/09 10:40
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	8.55	s.u.		0-10		SW9045D	09/24/09 10:00 / clr
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch-7	09/28/09 10:27 / kjp
Sulfide, Reactive	ND	mg/kg		20	600	SW846 Ch-7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6010B	09/22/09 23:36 / tao
Barium	462	mg/kg		5		SW6010B	09/22/09 23:36 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 23:36 / tao
Chromium	9	mg/kg		5		SW6010B	09/22/09 23:36 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 23:36 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:38 / age
Selenium	ND	mg/kg		5		SW6010B	09/22/09 23:36 / tao
Silver	ND	mg/kg		5		SW6010B	09/22/09 23:36 / tao

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Rolloff Box 20B30

Lab Order: 0909356

Collection Date: 9/16/2009 11:15:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	960	200		mg/Kg	20	9/23/2009 12:06:09 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	9/23/2009 12:06:09 PM
Surr: DNOP	0	61.7-135	S	%REC	20	9/23/2009 12:06:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	9/23/2009 3:28:54 AM
Surr: BFB	99.5	65.9-118		%REC	5	9/23/2009 3:28:54 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Aniline	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Anthracene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Azobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Benzo(g,h,i)perylene	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Carbazole	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Chrysene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
Di-n-octyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-10

Client Sample ID: Rolloff Box 20B30
 Collection Date: 9/16/2009 11:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Diethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/6/2009 10:09:33 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/6/2009 10:09:33 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/6/2009 10:09:33 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
Fluoranthene	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 PM
Fluorene	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Indeno(1,2,3-cd)pyrene	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 PM
Isophorone	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
2-Methylnaphthalene	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Naphthalene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
3-Nitroaniline	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
4-Nitroaniline	ND	1.3		mg/Kg	1	10/6/2009 10:09:33 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/6/2009 10:09:33 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Phenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Pyrene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Pyridine	ND	2.5		mg/Kg	1	10/6/2009 10:09:33 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/6/2009 10:09:33 PM
Surr: 2,4,6-Tribromophenol	72.8	35.5-141		%REC	1	10/6/2009 10:09:33 PM
Surr: 2-Fluorobiphenyl	73.2	30.4-128		%REC	1	10/6/2009 10:09:33 PM
Surr: 2-Fluorophenol	56.5	28.1-129		%REC	1	10/6/2009 10:09:33 PM
Surr: 4-Terphenyl-d14	67.5	34.6-151		%REC	1	10/6/2009 10:09:33 PM
Surr: Nitrobenzene-d5	68.6	26.5-122		%REC	1	10/6/2009 10:09:33 PM
Surr: Phenol-d5	59.1	37.6-118		%REC	1	10/6/2009 10:09:33 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: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup
 Lab Order: 0909356
 Project: API Overflow Sample Points
 Lab ID: 0909356-10

Client Sample ID: Rolloff Box 20B30
 Collection Date: 9/16/2009 11:15:00 AM
 Date Received: 9/17/2009
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Benzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Toluene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Ethylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Naphthalene	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	9/19/2009 3:22:15 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	9/19/2009 3:22:15 AM
Acetone	ND	0.75		mg/Kg	1	9/19/2009 3:22:15 AM
Bromobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Bromoform	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Bromomethane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
2-Butanone	ND	0.50		mg/Kg	1	9/19/2009 3:22:15 AM
Carbon disulfide	ND	0.50		mg/Kg	1	9/19/2009 3:22:15 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
Chlorobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Chloroethane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
Chloroform	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Chloromethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Dibromomethane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 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

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Hall Environmental Analysis Laboratory, Inc.

Date: 08-Oct-09

CLIENT: Western Refining Southwest, Gallup

Client Sample ID: Rolloff Box 20B30

Lab Order: 0909356

Collection Date: 9/16/2009 11:15:00 AM

Project: API Overflow Sample Points

Date Received: 9/17/2009

Lab ID: 0909356-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DAM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
2-Hexanone	ND	0.50		mg/Kg	1	9/19/2009 3:22:15 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	9/19/2009 3:22:15 AM
Methylene chloride	ND	0.15		mg/Kg	1	9/19/2009 3:22:15 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Styrene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
Vinyl chloride	ND	0.050		mg/Kg	1	9/19/2009 3:22:15 AM
Xylenes, Total	ND	0.10		mg/Kg	1	9/19/2009 3:22:15 AM
Surr: 1,2-Dichloroethane-d4	92.8	84-111		%REC	1	9/19/2009 3:22:15 AM
Surr: 4-Bromofluorobenzene	96.0	89.5-108		%REC	1	9/19/2009 3:22:15 AM
Surr: Dibromofluoromethane	94.9	90.6-123		%REC	1	9/19/2009 3:22:15 AM
Surr: Toluene-d8	99.4	76.6-108		%REC	1	9/19/2009 3:22:15 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

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ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * ell@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental
Project: 0909356
Lab ID: B09091942-010
Client Sample ID: 0909356-10B, G, Rolloff Box 20B30

Report Date: 09/24/09
Collection Date: 09/16/09 11:15
Date Received: 09/21/09
Matrix: Soil

Analyses	Result	Units	Qualifiers	RL	MCL QCL	Method	Analysis Date / By
IGNITABILITY							
Flash Point (Ignitability)	>200	°F		30		SW1010M	09/22/09 11:00 / pwc
CORROSIVITY							
pH of Soil and Waste	7.59	s.u.		0:10		SW9045D	09/24/09 10:00 / clc
REACTIVITY							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	09/23/09 10:36 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	09/22/09 08:00 / pwc
METALS, TOTAL - EPA SW846							
Arsenic	ND	mg/kg		5		SW6010B	09/22/09 23:40 / tao
Barium	364	mg/kg		5		SW6010B	09/22/09 23:40 / tao
Cadmium	ND	mg/kg		1		SW6010B	09/22/09 23:40 / tao
Chromium	11	mg/kg		5		SW6010B	09/22/09 23:40 / tao
Lead	ND	mg/kg		5		SW6010B	09/22/09 23:40 / tao
Mercury	ND	mg/kg		1		SW7471A	09/22/09 13:41 / age
Selenium	ND	mg/kg		5		SW6010B	09/22/09 23:40 / tao
Silver	ND	mg/kg		5		SW6010B	09/22/09 23:40 / tao

Report: RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Chain-of-Custody Record

Client: WESTERN - Refining

Gallup Refinery

Mailing Address: RT 3 Box 7

Gallup NM 87301

Phone #: 505 722 0258

email or Fax#: 505 722 0268

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:
**API OVERFLOW
SAMPLE POINTS**

Project #:

Project Manager:

BECK LARSEN

Sampler: **ALVIN DORSEY**

Office: Alvin Dorsey 01

Sample Temperature: 01

Container Type and #

Preservative Type

HEAVY METALS

API OVERFLOW

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA) Total	8270 (Semi-VOA)	TCLE Volatiles	Air Bubbles (Y or N)
9-16-09	9:15	soil	API-N-1	802		X				X			X		X	
9-16-09	9:25	soil	API-E-2	802		X				X			X		X	
9-16-09	9:35	soil	API-E-3	802		X				X			X		X	
9-16-09	9:42	soil	API-E-4	802		X				X			X		X	
9-16-09	9:48	soil	API-W-5	802		X				X			X		X	
9-16-09	9:58	soil	API-W-6	802		X				X			X		X	
9-16-09	10:10	soil	BKT-E-7	802		X				X			X		X	
9-16-09	10:20	soil	BKT-S-8	802		X				X			X		X	
9-16-09	10:40	soil	BKT-W-9	802		X				X			X		X	
9-16-09	11:15	soil	Rolloff Box 20B30	802		X				X			X		X	
9-16-09	11:20	soil	Rolloff Box 22026	802		X				X			X		X	

Date: 9-17-09 Time: 12:00 Relinquished by: Alvin Dorsey

Date: 9-17-09 Time: 1445 Received by: AS

Date: 9-17-09 Time: 1445 Received by: AS

Remarks:

API

BKT - BAKER TANKS

Rolloff Box

IF DO IS
greater Than
200PPM
RUV 8270

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

sample was written twice: 9/17/09

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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4901 Hawkins NE - Albuquerque, NM 87109

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-20143		MBLK				Batch ID: 20143	Analysis Date: 9/22/2009 8:59:19 AM				
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-20143		LCS				Batch ID: 20143	Analysis Date: 9/22/2009 9:35:00 AM				
Diesel Range Organics (DRO)	39.58	mg/Kg	10	50	0	79.2	64.6	116			
Sample ID: LCSD-20143		LCSD				Batch ID: 20143	Analysis Date: 9/22/2009 10:10:57 AM				
Diesel Range Organics (DRO)	44.69	mg/Kg	10	50	0	89.4	64.6	116	12.1	17.4	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 0909356-01A MSD		MSD				Batch ID: 20138	Analysis Date: 9/24/2009 5:31:16 AM				
Gasoline Range Organics (GRO)	29.65	mg/Kg	25	25	6.4	93.0	69.5	120	15.4	11.6	R
Sample ID: MB-20138		MBLK				Batch ID: 20138	Analysis Date: 9/22/2009 6:53:29 PM				
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-20138		LCS				Batch ID: 20138	Analysis Date: 9/22/2009 7:23:52 PM				
Gasoline Range Organics (GRO)	25.13	mg/Kg	5.0	25	2.98	88.6	64.4	133			
Sample ID: 0909356-01A MS		MS				Batch ID: 20138	Analysis Date: 9/24/2009 5:00:55 AM				
Gasoline Range Organics (GRO)	25.40	mg/Kg	25	25	6.4	76.0	69.5	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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 0909356-10a msd

MSD

Batch ID: 20138 Analysis Date: 9/18/2009 10:14:06 PM

Benzene	1.215	mg/Kg	0.050	1	0	122	82.3	107	6.29	20	S
Toluene	1.018	mg/Kg	0.050	1	0	102	79.8	104	3.16	20	
Chlorobenzene	1.050	mg/Kg	0.050	1	0	105	84.8	103	6.04	20	S
1,1-Dichloroethene	1.352	mg/Kg	0.050	1	0	135	55.9	129	9.14	20	S
Trichloroethene (TCE)	1.196	mg/Kg	0.050	1	0	120	77.5	102	6.32	20	S

Sample ID: mb-20138

MBLK

Batch ID: 20138 Analysis Date: 9/18/2009 8:49:41 PM

Benzene	ND	mg/Kg	0.050
Toluene	ND	mg/Kg	0.050
Ethylbenzene	ND	mg/Kg	0.050
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050
Naphthalene	ND	mg/Kg	0.10
1-Methylnaphthalene	ND	mg/Kg	0.20
2-Methylnaphthalene	ND	mg/Kg	0.20
Acetone	ND	mg/Kg	0.75
Bromobenzene	ND	mg/Kg	0.050
Bromodichloromethane	ND	mg/Kg	0.050
Bromoform	ND	mg/Kg	0.050
Bromomethane	ND	mg/Kg	0.10
2-Butanone	ND	mg/Kg	0.50
Carbon disulfide	ND	mg/Kg	0.50
Carbon tetrachloride	ND	mg/Kg	0.10
Chlorobenzene	ND	mg/Kg	0.050
Chloroethane	ND	mg/Kg	0.10
Chloroform	ND	mg/Kg	0.050
Chloromethane	ND	mg/Kg	0.050
2-Chlorotoluene	ND	mg/Kg	0.050
4-Chlorotoluene	ND	mg/Kg	0.050
cis-1,2-DCE	ND	mg/Kg	0.050
cis-1,3-Dichloropropene	ND	mg/Kg	0.050
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10
Dibromochloromethane	ND	mg/Kg	0.050
Dibromomethane	ND	mg/Kg	0.10
1,2-Dichlorobenzene	ND	mg/Kg	0.050
1,3-Dichlorobenzene	ND	mg/Kg	0.050
1,4-Dichlorobenzene	ND	mg/Kg	0.050
Dichlorodifluoromethane	ND	mg/Kg	0.050
1,1-Dichloroethane	ND	mg/Kg	0.10
1,1-Dichloroethene	ND	mg/Kg	0.050
1,2-Dichloropropane	ND	mg/Kg	0.050
1,3-Dichloropropane	ND	mg/Kg	0.050

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, Gallup

Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: mb-20138

MBLK

Batch ID: 20138 Analysis Date: 9/18/2009 8:49:41 PM

2,2-Dichloropropane	ND	mg/Kg	0.10								
1,1-Dichloropropene	ND	mg/Kg	0.10								
Hexachlorobutadiene	ND	mg/Kg	0.10								
2-Hexanone	ND	mg/Kg	0.50								
Isopropylbenzene	ND	mg/Kg	0.050								
4-Isopropyltoluene	ND	mg/Kg	0.050								
4-Methyl-2-pentanone	ND	mg/Kg	0.50								
Methylene chloride	ND	mg/Kg	0.15								
n-Butylbenzene	ND	mg/Kg	0.050								
n-Propylbenzene	ND	mg/Kg	0.050								
sec-Butylbenzene	ND	mg/Kg	0.050								
Styrene	ND	mg/Kg	0.050								
tert-Butylbenzene	ND	mg/Kg	0.050								
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050								
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050								
Tetrachloroethene (PCE)	ND	mg/Kg	0.050								
trans-1,2-DCE	ND	mg/Kg	0.050								
trans-1,3-Dichloropropene	ND	mg/Kg	0.050								
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10								
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050								
1,1,1-Trichloroethane	ND	mg/Kg	0.050								
1,1,2-Trichloroethane	ND	mg/Kg	0.050								
Trichloroethene (TCE)	ND	mg/Kg	0.050								
Trichlorofluoromethane	ND	mg/Kg	0.050								
1,2,3-Trichloropropane	ND	mg/Kg	0.10								
Vinyl chloride	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								

Sample ID: lcs-20138

LCS

Batch ID: 20138 Analysis Date: 9/18/2009 9:17:48 PM

Benzene	1.090	mg/Kg	0.050	1	0	109	84.5	114			
Toluene	0.9452	mg/Kg	0.050	1	0	94.5	85.4	109			
Chlorobenzene	0.9475	mg/Kg	0.050	1	0	94.7	86.8	110			
1,1-Dichloroethene	1.182	mg/Kg	0.050	1	0	118	74.4	129			
Trichloroethene (TCE)	1.041	mg/Kg	0.050	1	0	104	77.8	114			

Sample ID: 0909356-10a ms

MS

Batch ID: 20138 Analysis Date: 9/18/2009 9:45:55 PM

Benzene	1.141	mg/Kg	0.050	1	0	114	82.3	107			S
Toluene	0.9867	mg/Kg	0.050	1	0	98.7	79.8	104			
Chlorobenzene	0.9882	mg/Kg	0.050	1	0	98.8	84.8	103			
1,1-Dichloroethene	1.234	mg/Kg	0.050	1	0	123	55.9	129			
Trichloroethene (TCE)	1.122	mg/Kg	0.050	1	0	112	77.5	102			S

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, Gallup
 Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-20212

MBLK

Batch ID: 20212 Analysis Date: 10/6/2009 3:43:13 PM

Acenaphthene	ND	mg/Kg	0.20
Acenaphthylene	ND	mg/Kg	0.20
Aniline	ND	mg/Kg	0.20
Anthracene	ND	mg/Kg	0.20
Azobenzene	ND	mg/Kg	0.20
Benzo(a)anthracene	ND	mg/Kg	0.20
Benzo(a)pyrene	ND	mg/Kg	0.20
Benzo(b)fluoranthene	ND	mg/Kg	0.20
Benzo(g,h,i)perylene	ND	mg/Kg	0.50
Benzo(k)fluoranthene	ND	mg/Kg	0.20
Benzoic acid	ND	mg/Kg	0.50
Benzyl alcohol	ND	mg/Kg	0.20
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20
Butyl benzyl phthalate	ND	mg/Kg	0.20
Carbazole	ND	mg/Kg	0.20
4-Chloro-3-methylphenol	ND	mg/Kg	0.50
4-Chloroaniline	ND	mg/Kg	0.50
2-Chloronaphthalene	ND	mg/Kg	0.25
2-Chlorophenol	ND	mg/Kg	0.20
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20
Chrysene	ND	mg/Kg	0.20
Di-n-butyl phthalate	ND	mg/Kg	0.50
Di-n-octyl phthalate	ND	mg/Kg	0.20
Dibenz(a,h)anthracene	ND	mg/Kg	0.20
Dibenzofuran	ND	mg/Kg	0.20
1,2-Dichlorobenzene	ND	mg/Kg	0.20
1,3-Dichlorobenzene	ND	mg/Kg	0.20
1,4-Dichlorobenzene	ND	mg/Kg	0.20
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25
Diethyl phthalate	ND	mg/Kg	0.20
Dimethyl phthalate	ND	mg/Kg	0.20
2,4-Dichlorophenol	ND	mg/Kg	0.40
2,4-Dimethylphenol	ND	mg/Kg	0.30
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50
2,4-Dinitrophenol	ND	mg/Kg	0.40
2,4-Dinitrotoluene	ND	mg/Kg	0.50
2,6-Dinitrotoluene	ND	mg/Kg	0.50
Fluoranthene	ND	mg/Kg	0.25
Fluorene	ND	mg/Kg	0.50
Hexachlorobenzene	ND	mg/Kg	0.20

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, Gallup
 Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: mb-20212

MBLK

Batch ID: 20212 Analysis Date: 10/6/2009 3:43:13 PM

Hexachlorobutadiene	ND	mg/Kg	0.20
Hexachlorocyclopentadiene	ND	mg/Kg	0.20
Hexachloroethane	ND	mg/Kg	0.20
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25
Isophorone	ND	mg/Kg	0.50
2-Methylnaphthalene	ND	mg/Kg	0.25
2-Methylphenol	ND	mg/Kg	0.50
3+4-Methylphenol	ND	mg/Kg	0.20
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20
N-Nitrosodiphenylamine	ND	mg/Kg	0.20
Naphthalene	ND	mg/Kg	0.20
2-Nitroaniline	ND	mg/Kg	0.20
3-Nitroaniline	ND	mg/Kg	0.20
4-Nitroaniline	ND	mg/Kg	0.25
Nitrobenzene	ND	mg/Kg	0.50
2-Nitrophenol	ND	mg/Kg	0.20
4-Nitrophenol	ND	mg/Kg	0.20
Pentachlorophenol	ND	mg/Kg	0.40
Phenanthrene	ND	mg/Kg	0.20
Phenol	ND	mg/Kg	0.20
Pyrene	ND	mg/Kg	0.20
Pyridine	ND	mg/Kg	0.50
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20
2,4,5-Trichlorophenol	ND	mg/Kg	0.20
2,4,6-Trichlorophenol	ND	mg/Kg	0.20

Sample ID: lcs-20212

LCS

Batch ID: 20212 Analysis Date: 10/6/2009 4:12:47 PM

Acenaphthene	1.146	mg/Kg	0.20	1.67	0	68.6	42.5	90
4-Chloro-3-methylphenol	2.197	mg/Kg	0.50	3.33	0	66.0	39.6	101
2-Chlorophenol	2.132	mg/Kg	0.20	3.33	0	64.0	40.1	96.7
1,4-Dichlorobenzene	1.131	mg/Kg	0.20	1.67	0	67.7	34.6	95.3
2,4-Dinitrotoluene	1.128	mg/Kg	0.50	1.67	0	67.5	37.1	101
N-Nitrosodi-n-propylamine	1.207	mg/Kg	0.20	1.67	0	72.3	33.3	103
4-Nitrophenol	2.260	mg/Kg	0.20	3.33	0	67.9	32.7	125
Pentachlorophenol	2.353	mg/Kg	0.40	3.33	0	70.7	35.5	99.3
Phenol	2.209	mg/Kg	0.20	3.33	0	66.3	35.5	104
Pyrene	1.204	mg/Kg	0.20	1.67	0	72.1	34.4	90.6
1,2,4-Trichlorobenzene	1.205	mg/Kg	0.20	1.67	0	72.2	38.5	95

Sample ID: lcsd-20212

LCSD

Batch ID: 20212 Analysis Date: 10/6/2009 4:42:28 PM

Acenaphthene	1.149	mg/Kg	0.20	1.67	0	68.8	42.5	90	0.261	25
4-Chloro-3-methylphenol	2.300	mg/Kg	0.50	3.33	0	69.1	39.6	101	4.57	25
2-Chlorophenol	2.218	mg/Kg	0.20	3.33	0	66.6	40.1	96.7	3.97	25
1,4-Dichlorobenzene	1.141	mg/Kg	0.20	1.67	0	68.3	34.6	95.3	0.881	25
2,4-Dinitrotoluene	1.242	mg/Kg	0.50	1.67	0	74.4	37.1	101	9.62	25
N-Nitrosodi-n-propylamine	1.223	mg/Kg	0.20	1.67	0	73.3	33.3	103	1.34	25

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, Gallup
Project: API Overflow Sample Points

Work Order: 0909356

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C: Semivolatiles

Sample ID: lcsd-20212

LCSD

Batch ID:

20212

Analysis Date:

10/6/2009 4:42:28 PM

4-Nitrophenol	2.268	mg/Kg	0.20	3.33	0	68.1	32.7	125	0.339	25
Pentachlorophenol	2.260	mg/Kg	0.40	3.33	0	67.9	35.5	99.3	4.02	25
Phenol	2.198	mg/Kg	0.20	3.33	0	66.0	35.5	104	0.499	25
Pyrene	1.225	mg/Kg	0.20	1.67	0	73.4	34.4	90.6	1.73	25
1,2,4-Trichlorobenzene	1.169	mg/Kg	0.20	1.67	0	70.0	38.5	95	3.03	25

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



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QA/QC Summary Report

Client: Hall Environmental

Report Date: 09/24/09

Project: 0909356

Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW1010M									Batch: R136387
Sample ID: LCS-136387	Laboratory Control Sample					Run: MISC-HZW_090922C			09/22/09 11:00
Flash Point (Ignitability)	88.3	°F	30	99	98	102			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hall Environmental

Report Date: 09/24/09

Project: 0909356

Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Batch: 41536		
Sample ID: MB-41536	Method Blank		Run: ICP202-B_090922A				09/22/09 21:23		
Arsenic	ND	mg/kg	5.0						
Barium	ND	mg/kg	0.07						
Cadmium	ND	mg/kg	0.05						
Chromium	ND	mg/kg	0.1						
Lead	ND	mg/kg	0.5						
Selenium	ND	mg/kg	2						
Silver	ND	mg/kg	0.2						
Sample ID: LCS3-41536	Laboratory Control Sample		Run: ICP202-B_090922A				09/22/09 21:39		
Arsenic	150	mg/kg	5.0	87	70	130			
Barium	322	mg/kg	5.0	91	70	130			
Cadmium	49.5	mg/kg	1.0	90	70	130			
Chromium	105	mg/kg	5.0	93	70	130			
Lead	112	mg/kg	5.0	91	70	130			
Selenium	95.7	mg/kg	5.0	84	70	130			
Silver	59.7	mg/kg	5.0	91	70	130			
Sample ID: B09091884-001AMS3	Sample Matrix Spike		Run: ICP202-B_090922A				09/22/09 22:15		
Arsenic	46.9	mg/kg	5.0	80	75	125			
Barium	66.4	mg/kg	5.0	81	75	125			
Cadmium	21.9	mg/kg	1.0	86	75	125			
Chromium	52.8	mg/kg	5.0	85	75	125			
Lead	114	mg/kg	5.0	101	75	125			
Selenium	33.6	mg/kg	5.0	67	75	125			S
Silver	18.8	mg/kg	5.0	76	75	125			
Sample ID: B09091884-001AMSD3	Sample Matrix Spike Duplicate		Run: ICP202-B_090922A				09/22/09 22:28		
Arsenic	44.7	mg/kg	5.0	76	75	125	4.9	20	
Barium	64.5	mg/kg	5.0	78	75	125	2.8	20	
Cadmium	21.0	mg/kg	1.0	82	75	125	4	20	
Chromium	51.6	mg/kg	5.0	83	75	125	2.2	20	
Lead	120	mg/kg	5.0	113	75	125	5.2	20	
Selenium	32.1	mg/kg	5.0	64	75	125	4.6	20	S
Silver	17.6	mg/kg	5.0	71	75	125	6.7	20	S
Sample ID: B09091942-003ADIL	Serial Dilution		Run: ICP202-B_090922A				09/22/09 22:44		
Arsenic	ND	mg/kg	5.0		0	0		10	
Barium	344	mg/kg	5.0		0	0	1.1	10	
Cadmium	ND	mg/kg	1.0		0	0		10	
Chromium	4.45	mg/kg	5.0		0	0		10	N
Lead	ND	mg/kg	8.9		0	0		10	
Selenium	ND	mg/kg	8.7		0	0		10	
Silver	ND	mg/kg	5.0		0	0		10	

Qualifiers:

RL - Analyte reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



QA/QC Summary Report

Client: Hall Environmental

Project: 0909356

Report Date: 09/24/09

Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B							Batch: 41536		
Sample ID: MB-41536	Method Blank		Run: ICP202-B_090923A				09/23/09 15:44		
Arsenic	ND	mg/kg	0.9						
Barium	ND	mg/kg	0.07						
Cadmium	ND	mg/kg	0.05						
Chromium	ND	mg/kg	0.1						
Lead	ND	mg/kg	0.5						
Selenium	ND	mg/kg	2						
Silver	ND	mg/kg	0.2						

Method: SW6010B							Analytical Run: ICP202-B_090922A		
Sample ID: QCS	Initial Calibration Verification Standard						09/22/09 11:06		
Arsenic	0.840	mg/L	0.10	105	90	110			
Barium	0.782	mg/L	0.10	98	90	110			
Cadmium	0.408	mg/L	0.010	102	90	110			
Chromium	0.834	mg/L	0.050	104	90	110			
Lead	0.822	mg/L	0.050	103	90	110			
Selenium	0.844	mg/L	0.10	105	90	110			
Silver	0.411	mg/L	0.010	103	90	110			

Sample ID: ICSA	Interference Check Sample A						09/22/09 11:22		
Arsenic	-0.00265	mg/L	0.10		-0.1	0.1			
Barium	0.000570	mg/L	0.10		-0.005	0.0005			
Cadmium	0.00451	mg/L	0.010		-0.001	0.001			
Chromium	0.00162	mg/L	0.050		-0.01	0.01			
Lead	-0.0527	mg/L	0.050		-0.01	0.01			
Selenium	-0.0377	mg/L	0.10		-0.1	0.1			
Silver	0.00266	mg/L	0.010		-0.005	0.005			

Sample ID: ICSAB	Interference Check Sample AB						09/22/09 11:26		
Arsenic	1.06	mg/L	0.10	106	80	120			
Barium	0.507	mg/L	0.10	101	80	120			
Cadmium	1.00	mg/L	0.010	100	80	120			
Chromium	0.523	mg/L	0.050	105	80	120			
Lead	1.01	mg/L	0.050	101	80	120			
Selenium	0.932	mg/L	0.10	93	80	120			
Silver	1.10	mg/L	0.010	101	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



QA/QC Summary Report

Client: Hall Environmental
Project: 0909358

Report Date: 09/24/09
Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B			Analytical Run: ICP202-B_090923A						
Sample ID: QCS	Initial Calibration Verification Standard								09/23/09 10:46
Arsenic	0.777	mg/L	0.10	97	90	110			
Barium	0.814	mg/L	0.10	102	90	110			
Sample ID: ICSA	Interference Check Sample A								09/23/09 11:02
Arsenic	0.00387	mg/L	0.10		-0.1	0.1			
Barium	0.000310	mg/L	0.10		-0.005	0.0005			
Sample ID: ICSAB	Interference Check Sample AB								09/23/09 11:06
Arsenic	0.988	mg/L	0.10	99	80	120			
Barium	0.522	mg/L	0.10	104	80	120			
Method: SW6020			Batch: 41536						
Sample ID: MB-41536	Method Blank		Run: ICPMS203-B_090923A				09/23/09 18:34		
Arsenic	ND	mg/kg	0.02						
Selenium	ND	mg/kg	0.05						
Silver	0.010	mg/kg	0.005						
Sample ID: LCS3-41536	Laboratory Control Sample		Run: ICPMS203-B_090923A				09/23/09 18:39		
Arsenic	162	mg/kg	5.0	94	70	130			
Selenium	112	mg/kg	5.0	98	70	130			
Silver	67.4	mg/kg	5.0	103	70	130			
Sample ID: B09091942-001ADIL	Serial Dilution		Run: ICPMS203-B_090923A				09/23/09 18:57		
Arsenic	1.70	mg/kg	5.0		0	0	10		N
Selenium	ND	mg/kg	5.0		0	0	10		
Silver	0.278	mg/kg	5.0		0	0	10		N
Sample ID: B09091884-001AMS3	Sample Matrix Spike		Run: ICPMS203-B_090923A				09/23/09 19:57		
Arsenic	49.2	mg/kg	5.0	82	75	125			
Selenium	46.2	mg/kg	5.0	92	75	125			
Silver	20.6	mg/kg	5.0	83	75	125			
Sample ID: B09091884-001AMSD3	Sample Matrix Spike Duplicate		Run: ICPMS203-B_090923A				09/23/09 20:20		
Arsenic	49.3	mg/kg	5.0	83	75	125	0.3	20	
Selenium	44.6	mg/kg	5.0	89	75	125	3.6	20	
Silver	20.1	mg/kg	5.0	81	75	125	2.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.



QA/QC Summary Report

Client: Hall Environmental
Project: 0909356

Report Date: 09/24/09
Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8020			Analytical Run: ICPMS203-B_090923A						
Sample ID: QCS-090602A,090609B,D Initial Calibration Verification Standard			09/23/09 15:02						
Arsenic	0.0487	mg/L	0.0010	97	90	110			
Selenium	0.0502	mg/L	0.0010	100	90	110			
Silver	0.0246	mg/L	0.0010	98	90	110			
Sample ID: ICSA-ME090423A Interference Check Sample A			09/23/09 15:07						
Arsenic	7.20E-08	mg/L	0.0010						
Selenium	0.000221	mg/L	0.0010						
Silver	0.000165	mg/L	0.0010						
Sample ID: ICSAB-ME090423A,0901 Interference Check Sample AB			09/23/09 15:11						
Arsenic	0.0101	mg/L	0.0010	101	70	130			
Selenium	0.00989	mg/L	0.0010	97	70	130			
Silver	0.0202	mg/L	0.0010	101	70	130			
Method: SW7471A			Batch: 41574						
Sample ID: MB-41574 Method Blank			Run: HGCV201-B_090922A 09/22/09 13:07						
Mercury	ND	mg/kg	0.05						
Sample ID: LCS3-41574 Laboratory Control Sample			Run: HGCV201-B_090922A 09/22/09 13:10						
Mercury	4.98	mg/kg	1.0	100	70	130			
Sample ID: B09091942-010AMS3 Sample Matrix Spike			Run: HGCV201-B_090922A 09/22/09 13:43						
Mercury	11.5	mg/kg	1.0	117	70	130			
Sample ID: B09091942-010AMSD3 Sample Matrix Spike Duplicate			Run: HGCV201-B_090922A 09/22/09 13:45						
Mercury	11.4	mg/kg	1.0	116	70	130	0.8	30	
Sample ID: B09091943-001ADIL Serial Dilution			Run: HGCV201-B_090922A 09/22/09 13:50						
Mercury	0.667	mg/kg	1.0		0	0		20	N
Method: SW7471A			Analytical Run: HGCV201-B_090922A						
Sample ID: QCS Initial Calibration Verification Standard			09/22/09 13:00						
Mercury	0.00193	mg/kg	1.0	97	85	115			
Method: SW846 Ch 7			Batch: 41552						
Sample ID: MB-41552 Method Blank			Run: AUTOAN201-B_090923A 09/23/09 10:07						
Cyanide, Reactive	ND	mg/kg	0.05						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.



QA/QC Summary Report

Client: Hall Environmental

Project: 0909356

Report Date: 09/24/09

Work Order: B09091942

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW846 Ch 7									Batch: R136373
Sample ID: MB-R136373	Method Blank					Run: MISC-HZW_090922B			09/22/09 08:00
Sulfide, Reactive	ND	mg/kg	10						
Sample ID: LCS-R136373	Laboratory Control Sample					Run: MISC-HZW_090922B			09/22/09 08:00
Sulfide, Reactive	36	mg/kg	20	133	50	150			
Method: SW9045D									Analytical Run: PH METER_090924A
Sample ID: ICV	Initial Calibration Verification Standard								09/24/09 10:00
pH of Soil and Waste	3.97	s.u.	0.10	99	98	102			
Method: SW9045D									Batch: R136481
Sample ID: B09091942-001ADUP	Sample Duplicate					Run: PH METER_090924A			09/24/09 10:00
pH of Soil and Waste	7.66	s.u.	0.10				0.9	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name **WESTERN REFINING GALLU**

Date Received:

9/17/2009

Work Order Number **0909356**

Received by: **TLS**

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

Matrix:

Carrier name: Client drop-off

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 ☐

Number of preserved bottles checked for pH:

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 ☒

<2 >12 unless noted below.

Container/Temp Blank temperature?

0.9°

<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, Inc.

REMIT TO: **Hall Environmental Analysis Lab, Inc.**
Accounts Receivable
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109-4372
TEL: (505) 345-3975

INVOICE

INV DATE: *October 08, 2009*
Print DATE: *October 08, 2009*

Invoice No: **0909356**

Invoice TO: **Western Refining Southwest, Gallup Refinery**
Rt 3 Box 7
Gallup, NM 87301

Attn: **Thurman B. Larsen**
Phone: **(505) 722-3833**

Work Order: **0909356**

Order Name **API Overflow Sample Points**

PO Number:

Date Received **9/17/2009**

Item	Remarks	Matrix	Qty	Unit Price	Mult	Quoted	Test Total
EPA Method 8015B: Diesel Range Organic		Soil	10	\$40.00	1	\$40.00	\$400.00
EPA Method 8015B: Gasoline Range		Soil	10	\$40.00	1	\$40.00	\$400.00
EPA Method 8260B: VOLATILES		Soil	10	\$120.00	1	\$120.00	\$1,200.00
EPA Method 8270C: Semivolatiles		Soil	10	\$300.00	1	\$300.00	\$3,000.00
RCRA 8 Metals			10	\$110.00	1.5	\$165.00	\$1,650.00
Reactivity, Corrosivity and Ignitability		Soil	10	\$140.00	1.5	\$210.00	\$2,100.00

Subtotal: **\$8,750.00**

Discount: **10.00%**

Sales Tax: **6.88%**

Misc Charges: **\$0.00**

Payment Received: **\$0.00**

INVOICE Total: \$8,416.41

All invoices are due and payable net 30 days from receipt.

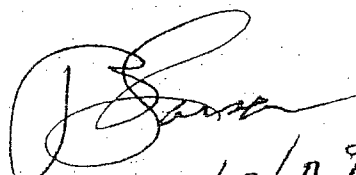

10/9/09

Table A-1: NMED Soil Screening Levels

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Acenaphthene	3.73E+03	nc	3.35E+04	nc	1.41E+04	nc	x	3.65E+02	nc	2.75E+00	5.49E+01
Acetaldehyde	1.06E+02	nc	3.84E+02	nc	3.45E+02	nc	x	1.72E+01	ca		
Acetone	2.81E+04	nc	1.00E+05	max	9.85E+04	nc	x	5.48E+03	nc	9.55E-01	1.91E+01
Acrylonitrile	4.27E+00	ca	1.26E+01	ca	5.75E+01	nc	x	3.81E-01	ca	6.68E-05	1.34E-03
Acetophenone	1.48E+03	sat	1.48E+03	sat	1.48E+03	sat	x	6.08E+02	nc	1.48E-01	2.95E+00
Acrolein	2.06E-01	nc	7.52E-01	nc	6.75E-01	nc	x	4.16E-02	nc	8.55E-06	1.71E-04
Aldrin	2.84E-01	ca	1.12E+00	ca	6.99E+00	nc		3.87E-02	ca	1.42E-01	2.84E+00
Aluminum	7.78E+04	nc	1.00E+05	max	1.44E+04	nc		3.65E+04	nc	5.48E+04	1.10E+06
Anthracene	2.20E+04	nc	1.00E+05	max	8.60E+04	nc	x	1.83E+03	nc	8.11E+01	1.62E+03
Antimony	3.13E+01	nc	4.54E+02	nc	1.24E+02	nc		1.46E+01	nc	6.81E-01	1.32E+01
Arsenic	3.90E+00	ca	1.77E+01	ca	8.52E+01	nc		4.42E-01	ca	1.45E-02	2.90E-01
Barium	1.56E+04	nc	1.00E+05	max	6.02E+04	nc		7.30E+03	nc	3.01E+02	6.03E+03
Benzene	1.03E+01	ca	2.58E+01	ca	1.74E+02	nc	x	3.49E+00	ca	1.00E-03	2.01E-02
Benzidine	2.11E-02	ca	8.33E-02	ca	7.09E-01	ca		2.89E-03	ca	1.24E-05	2.47E-04
Benzo(a)anthracene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	5.43E-01	1.09E+01
Benzo(a)pyrene	6.21E-01	ca	2.34E+00	ca	2.12E+01	ca		9.09E-02	ca	1.39E-01	2.78E+00
Benzo(b)fluoranthene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	1.68E+00	3.35E+01
Benzo(k)fluoranthene	6.21E+01	ca	2.34E+02	ca	2.12E+03	ca		9.09E+00	ca	1.68E+01	3.35E+02
Beryllium	1.56E+02	nc	2.25E+03	nc	5.62E+01	nc		7.30E+01	nc	5.77E+01	1.15E+03
a-BHC (HCH)	9.02E-01	ca	3.99E+00	ca	3.00E+01	ca		1.05E-01	ca	2.13E-04	4.25E-03
b-BHC (HCH)	3.16E+00	ca	1.40E+01	ca	5.39E+01	nc		3.69E-01	ca	7.61E-04	1.52E-02
g-BHC	4.37E+00	ca	1.93E+01	ca	8.09E+01	nc		5.10E-01	ca	9.08E-04	1.82E-02
1,1-Biphenyl	3.08E+03	nc	2.73E+04	nc	1.17E+04	nc	x	3.04E+02	nc	3.61E+00	7.22E+01
Bis(2-chloroethyl) ether	2.44E+00	ca	7.45E+00	ca	1.05E+02	ca		9.65E-02	ca	2.77E-05	5.55E-04
Bis(2-chloroisopropyl) ether	3.87E+01	ca	1.19E+02	ca	4.53E+02	sat	x	2.71E+00	ca	7.21E-04	1.44E-02
Bis(2-ethylhexyl) phthalate	3.47E+02	ca	1.37E+03	ca	4.66E+03	nc		4.74E+01	ca	1.07E+03	2.15E+04
Bis(chloromethyl) ether	4.72E-03	ca	1.23E-02	ca	2.32E-01	ca	x	5.09E-04	ca	8.95E-08	1.79E-06
Boron	1.56E+04	nc	1.00E+05	max	3.09E+04	nc		7.30E+03	nc	2.40E+01	4.80E+02
Bromobenzene	3.70E+01	nc	1.37E+02	nc	1.21E+02	nc	x	2.06E+01	nc	1.07E-02	2.14E-01
Bromodichloromethane	1.44E+01	ca	3.72E+01	ca	7.17E+02	ca	x	1.78E+00	ca	5.90E-04	1.18E-02

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Bromomethane	8.51E+00	nc	3.28E+01	nc	2.82E+01	nc	x	8.66E+00	nc	1.87E-03	3.74E-02
1,3-Butadiene	9.93E-01	ca	2.38E+00	ca	4.59E+00	nc	x	1.26E+00	ca		
2-Butanone (MEK)	3.18E+04	nc	4.87E+04	sat	4.87E+04	sat	x	7.06E+03	nc	1.27E+00	2.55E+01
tert-Butyl methyl ether (MTBE)	3.88E+02	ca	9.84E+02	ca	1.96E+04	ca	x	6.14E+01	ca		
n-Butylbenzene	6.21E+01	sat	6.21E+01	sat	6.21E+01	sat	x	6.08E+01	nc	2.70E-01	5.40E+00
sec-Butylbenzene	6.06E+01	sat	6.06E+01	sat	6.06E+01	sat	x	6.08E+01	nc	2.17E-01	4.33E+00
tert-Butylbenzene	1.06E+02	sat	1.06E+02	sat	1.06E+02	sat	x	6.08E+01	nc	2.15E-01	4.30E+00
Cadmium	3.90E+01	nc	5.64E+02	nc	1.54E+02	nc		1.83E+01	nc	1.37E+00	2.75E+01
Carbon disulfide	4.60E+02	sat	4.60E+02	sat	4.60E+02	sat	x	1.04E+03	nc	3.95E-01	7.89E+00
Carbon tetrachloride	3.47E+00	ca	8.64E+00	ca	1.80E+02	ca	x	1.69E+00	ca	9.74E-04	1.95E-02
Chlordane	1.62E+01	ca	7.19E+01	ca	1.30E+02	nc		1.90E+00	ca	3.42E-01	6.83E+00
2-Chloroacetophenone	4.25E-02	nc	1.62E-01	nc	1.41E-01	nc	x	5.22E-02	nc	4.37E-05	8.75E-04
2-Chloro-1,3-butadiene	6.32E+00	nc	2.30E+01	nc	2.06E+01	nc	x	1.43E+01	nc	5.66E-03	1.13E-01
1-Chloro-1,1-difluoroethane	2.11E+02	sat	2.11E+02	sat	2.11E+02	sat	x	8.66E+04	nc	6.28E+01	1.26E+03
Chlorobenzene	1.94E+02	nc	2.45E+02	sat	2.45E+02	sat	x	1.06E+02	nc	5.50E-02	1.10E+00
1-Chlorobutane	1.22E+02	nc	2.99E+02	sat	2.99E+02	sat	x	2.43E+02	nc	9.63E-02	1.93E+00
Chlorodifluoromethane	2.11E+02	sat	2.11E+02	sat	2.11E+02	sat	x	9.75E+04	nc	7.07E+01	1.41E+03
Chloroethane	6.33E+01	ca	1.54E+02	ca	1.42E+03	sat	x	3.81E+01	ca	9.41E-03	1.88E-01
Chloroform	4.00E+00	ca	9.59E+00	ca	2.16E+02	ca	x	1.65E+00	ca	4.12E-04	8.25E-03
Chloromethane	2.18E+01	ca	5.34E+01	ca	2.84E+02	nc	x	1.49E+01	ca	5.02E-03	1.00E-01
b-Chloronaphthalene	3.99E+03	nc	2.78E+04	nc	1.47E+04	nc	x	4.87E+02	nc	1.25E+00	2.51E+01
o-Chloronitrobenzene	1.49E+00	nc	5.48E+00	nc	4.88E+00	nc	x	1.45E-01	nc	3.94E-05	7.88E-04
p-Chloronitrobenzene	1.05E+01	nc	4.23E+01	nc	3.51E+01	nc	x	1.20E+00	nc	3.25E-04	6.51E-03
2-Chlorophenol	1.66E+02	nc	8.85E+02	nc	5.86E+02	nc	x	3.04E+01	nc	2.36E-02	4.72E-01
2-Chloropropane	2.83E+02	nc	7.05E+02	sat	7.05E+02	sat	x	1.76E+02	nc	4.60E-02	9.19E-01
o-Chlorotoluene	2.02E+02	sat	2.02E+02	sat	2.02E+02	sat	x	1.22E+02	nc	5.22E-02	1.04E+00
Chromium III	1.00E+05	max	1.00E+05	max	1.00E+05	max		5.48E+04	nc	9.86E+07	1.97E+09
Chromium VI	2.34E+02	nc	3.40E+03	nc	2.61E+01	ca		1.10E+02	nc	2.10E+00	4.20E+01
Chrysene	6.15E+02	ca	2.31E+03	ca	2.12E+04	ca	x	2.91E+01	ca	1.74E+01	3.48E+02
Cobalt	1.52E+03	nc	2.05E+04	nc	6.10E+01	nc		7.30E+02	nc	3.31E+01	6.61E+02
Copper	3.13E+03	nc	4.54E+04	nc	1.24E+04	nc		1.46E+03	nc	5.15E+01	1.03E+03
Crotonaldehyde	7.01E-02	ca	1.70E-01	ca	3.73E+00	ca	x	5.82E-02	ca	1.49E-04	2.99E-03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Cumene (isopropylbenzene)	2.71E+02	nc	3.89E+02	sat	3.89E+02	sat	x	6.78E+02	nc	4.10E+00	8.21E+01
Cyanide	1.22E+03	nc	1.37E+04	nc	4.76E+03	nc		7.30E+02	nc	7.35E+00	1.47E+02
Cyanogen	1.71E+03	sat	1.71E+03	sat	1.71E+03	sat	x	1.46E+03	nc	2.91E-01	5.82E+00
Cyanogen bromide	2.02E+03	sat	2.02E+03	sat	2.02E+03	sat	x	3.29E+03	nc	7.76E-01	1.55E+01
Cyanogen chloride	2.02E+03	sat	2.02E+03	sat	2.02E+03	sat	x	1.83E+03	nc	4.31E-01	8.62E+00
DDD	2.44E+01	ca	1.11E+02	ca	8.07E+02	ca		2.77E+00	ca	4.15E+00	8.30E+01
DDE	1.72E+01	ca	7.81E+01	ca	5.70E+02	ca		1.95E+00	ca	1.31E+01	2.62E+02
DDT	1.72E+01	ca	7.81E+01	ca	1.38E+02	nc		1.95E+00	ca	7.70E+00	1.54E+02
Dibenz(a,h)anthracene	6.21E-01	ca	2.34E+00	ca	2.12E+01	ca		9.09E-02	ca	5.18E-01	1.04E+01
Dibenzofuran	1.42E+02	nc	1.62E+03	nc	5.52E+02	nc	x	1.22E+01	nc	1.44E-01	2.87E+00
1,2-Dibromo-3-chloropropane	1.84E+00	nc	9.68E+00	nc	6.48E+00	nc	x	3.47E-01	nc	1.49E-04	2.98E-03
Dibromochloromethane	1.48E+01	ca	3.95E+01	ca	7.16E+02	ca	x	1.32E+00	ca	3.58E-04	7.16E-03
1,2-Dibromoethane	5.04E-01	ca	1.31E+00	ca	2.48E+01	ca	x	5.53E-02	ca	1.20E-05	2.40E-04
1,4-Dichloro-2-butene	1.22E-01	ca	3.23E-01	ca	5.97E+00	ca	x	1.19E-02	ca	2.93E-06	5.87E-05
1,2-Dichlorobenzene	3.74E+01	sat	3.74E+01	sat	3.74E+01	sat	x	4.96E+01	nc	1.19E-02	2.37E-01
1,3-Dichlorobenzene	3.26E+01	nc	3.74E+01	sat	3.74E+01	sat	x	1.83E+01	nc	4.36E-03	8.73E-02
1,4-Dichlorobenzene	3.95E+01	ca	1.03E+02	ca	1.96E+03	ca	x	4.95E+00	ca	5.49E-03	1.10E-01
3,3-Dichlorobenzidine	1.08E+01	ca	4.26E+01	ca	3.63E+02	ca		1.47E+00	ca	1.86E-03	3.71E-02
Dichlorodifluoromethane	1.61E+02	nc	2.11E+02	sat	2.11E+02	sat	x	3.95E+02	nc	2.86E-01	5.72E+00
1,1-Dichloroethane	1.40E+03	nc	1.42E+03	sat	1.42E+03	sat	x	1.22E+03	nc	3.39E-01	6.79E+00
1,2-Dichloroethane	6.04E+00	ca	1.52E+01	ca	6.42E+01	nc	x	1.22E+00	ca	2.85E-04	5.71E-03
cis-1,2-Dichloroethene	7.65E+01	nc	3.00E+02	nc	2.54E+02	nc	x	6.08E+01	nc	1.49E-02	2.99E-01
trans-1,2-Dichloroethene	1.12E+02	nc	4.29E+02	nc	3.70E+02	nc	x	1.22E+02	nc	3.33E-02	6.67E-01
1,1-Dichloroethene	2.06E+02	nc	7.77E+02	nc	6.78E+02	nc	x	3.39E+02	nc	1.34E-01	2.68E+00
2,4-Dichlorophenol	1.83E+02	nc	2.05E+03	nc	6.99E+02	nc		1.10E+02	nc	4.31E-02	8.63E-01
1,2-Dichloropropane	6.00E+00	ca	1.49E+01	ca	3.33E+01	nc	x	1.63E+00	ca	4.10E-04	8.19E-03
1,3-Dichloropropene	1.20E+01	ca	3.17E+01	ca	8.98E+01	nc	x	3.90E+00	ca	1.16E-03	2.31E-02
Dicyclopentadiene	2.21E+01	nc	8.26E+01	nc	7.28E+01	nc	x	1.39E+01	nc	1.50E-02	3.00E-01
Dieldrin	3.04E-01	ca	1.20E+00	ca	1.02E+01	ca		4.15E-02	ca	1.34E-03	2.68E-02
Diethyl phthalate	4.89E+04	nc	1.00E+05	max	1.00E+05	max		2.92E+04	nc	1.77E+01	3.54E+02
Dimethyl phthalate	1.00E+05	max	1.00E+05	max	1.00E+05	max		3.65E+05	nc	8.36E+01	1.67E+03
Di-n-butyl phthalate	6.11E+03	nc	6.84E+04	nc	2.33E+04	nc		3.65E+03	nc	1.86E+02	3.72E+03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
2,4-Dimethylphenol	1.22E+03	nc	1.37E+04	nc	4.66E+03	nc		7.30E+02	nc	3.55E-01	7.11E+00
4,6-Dinitro-o-cresol	6.11E+00	nc	6.84E+01	nc	2.33E+01	nc		3.65E+00	nc	3.93E-03	7.85E-02
2,4-Dinitrophenol	1.22E+02	nc	1.37E+03	nc	4.66E+02	nc		7.30E+01	nc	5.25E-02	1.05E+00
2,4-Dinitrotoluene	1.22E+02	nc	1.37E+03	nc	4.66E+02	nc		7.30E+01	nc	2.31E-02	4.62E-01
1,2-Diphenylhydrazine	6.08E+00	ca	2.39E+01	ca	2.04E+02	ca		8.30E-01	ca	4.48E-03	8.95E-02
Endosulfan	3.67E+02	nc	4.10E+03	nc	1.40E+03	nc		2.19E+02	nc	7.41E-01	1.48E+01
Endrin	1.83E+01	nc	2.05E+02	nc	6.99E+01	nc		1.10E+01	nc	2.04E-01	4.08E+00
Epichlorohydrin	1.66E+01	nc	6.56E+01	nc	5.54E+01	nc	x	2.03E+00	nc	3.62E-04	7.25E-03
Ethyl acetate	2.10E+04	sat	2.10E+04	sat	2.10E+04	sat	x	5.48E+03	nc	1.44E+00	2.87E+01
Ethyl acrylate	2.79E+00	ca	6.75E+00	ca	5.22E+01	sat	x	2.30E+00	ca	5.86E-03	1.17E-01
Ethyl chloride	6.33E+01	ca	1.54E+02	ca	1.42E+03	sat	x	3.81E+01	ca	9.41E-03	1.88E-01
Ethyl ether	1.94E+03	sat	1.94E+03	sat	1.94E+03	sat	x	1.22E+03	nc	2.37E-01	4.73E+00
Ethyl methacrylate	5.27E+01	sat	5.27E+01	sat	5.27E+01	sat	x	5.48E+02	nc	1.41E+00	2.81E+01
Ethylbenzene	1.28E+02	sat	1.28E+02	sat	1.28E+02	sat	x	1.34E+03	nc	1.01E+00	2.02E+01
Ethylene oxide	2.65E+00	ca	8.07E+00	ca	1.15E+02	ca	x	2.41E-01	ca	4.27E-05	8.54E-04
Fluoranthene	2.29E+03	nc	2.44E+04	nc	8.73E+03	nc		1.46E+03	nc	2.35E+02	4.69E+03
Fluorene	2.66E+03	nc	2.65E+04	nc	1.02E+04	nc	x	2.43E+02	nc	2.93E+00	5.85E+01
Fluoride	3.67E+03	nc	4.10E+04	nc	1.43E+04	nc		2.19E+03	nc	3.29E+02	6.58E+03
Furan	5.53E+00	nc	2.12E+01	nc	1.83E+01	nc	x	6.08E+00	nc	1.32E-03	2.63E-02
Heptachlor	1.08E+00	ca	4.26E+00	ca	3.63E+01	ca		1.47E-01	ca	3.12E-01	6.24E+00
Hexachlorobenzene	3.04E+00	ca	1.20E+01	ca	1.02E+02	ca		4.15E-01	ca	3.43E-02	6.86E-01
Hexachloro-1,3-butadiene	1.22E+01	nc	1.37E+02	nc	4.66E+01	nc		7.30E+00	nc	5.90E-01	1.18E+01
Hexachlorocyclopentadiene	3.66E+02	nc	4.10E+03	nc	4.31E+02	nc		2.19E+02	nc	6.58E+01	1.32E+03
Hexachloroethane	6.11E+01	nc	6.84E+02	nc	2.33E+02	nc		3.65E+01	nc	1.04E-01	2.09E+00
n-Hexane	3.80E+01	sat	3.80E+01	sat	3.80E+01	sat	x	4.16E+02	nc	8.64E-01	1.73E+01
HMX	3.06E+03	nc	3.42E+04	nc	1.17E+04	nc		1.83E+03	nc	5.39E+00	1.08E+02
Hydrogen cyanide	2.24E+01	nc	8.22E+01	nc	7.33E+01	nc	x	6.20E+00	nc	1.24E-03	2.47E-02
Indeno(1,2,3-c,d)pyrene	6.21E+00	ca	2.34E+01	ca	2.12E+02	ca		9.09E-01	ca	4.73E+00	9.46E+01
Iron	2.35E+04	nc	1.00E+05	max	9.29E+04	nc		1.10E+04	nc	2.77E+02	5.54E+03
Isobutanol	1.38E+04	nc	2.26E+04	sat	2.26E+04	sat	x	1.83E+03	nc	4.86E-01	9.72E+00
Isophorone	5.12E+03	ca	2.02E+04	ca	4.66E+04	nc		6.99E+02	ca	1.70E-01	3.40E+00
Lead	4.00E+02	IEUBK	8.00E+02	IEUBK	8.00E+02	IEUBK					

Chemical	Residential Soil (mg/kg)	End-point	Industrial/ Occupational Soil (mg/kg)	End-point	Construction Worker Soil (mg/kg)	End-point	VOC	Tap Water (ug/L)	End-point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Lead (tetraethyl-)	6.11E+03	nc	6.84E+02	nc	2.38E+02	nc		3.65E+03	nc	6.33E+07	1.27E+05
Maleic hydrazide	1.61E+03	sat	1.61E+03	sat	1.61E+03	sat	x	3.04E+03	nc	8.12E+01	1.62E+01
Manganese	3.59E+03	nc	4.84E+04	nc	1.50E+02	nc		1.72E+03	nc	1.12E+02	2.24E+03
Mercury (elemental)	1.00E+05	max	1.00E+05	max	9.27E+02	nc				1.05E+01	2.09E+03
Mercury (methyl)	6.11E+00	nc	6.84E+01	nc	2.38E+01	nc		3.65E+00	nc	8.26E+04	1.65E+02
Methacrylonitrile	3.84E+00	nc	2.20E+01	nc	1.37E+01	nc	x	1.04E+00	nc	1.83E+04	3.65E+03
Methomyl	8.44E+01	nc	3.17E+02	nc	2.78E+02	nc	x	1.52E+02	nc	5.74E+02	1.15E+00
Methyl acetate	3.76E+04	nc	1.00E+05	max	1.00E+05	max	x	6.08E+03	nc	1.08E+00	2.15E+01
Methyl acrylate	9.28E+01	nc	1.57E+02	sat	1.57E+02	sat	x	1.83E+02	nc	4.64E+01	9.29E+00
Methyl isobutyl ketone	5.51E+03	nc	7.01E+03	sat	7.01E+03	sat	x	1.99E+03	nc	7.35E+01	1.47E+01
Methyl methacrylate	2.92E+03	sat	2.92E+03	sat	2.92E+03	sat	x	1.42E+03	nc	2.76E+01	5.52E+00
Methyl styrene (alpha)	2.17E+02	sat	2.17E+02	sat	2.17E+02	sat	x	4.26E+02	nc	3.08E+01	6.17E+00
Methyl styrene (mixture)	1.39E+02	nc	2.17E+02	sat	2.17E+02	sat	x	5.48E+01	nc	3.96E+02	7.93E+01
Methylcyclohexane	7.89E+01	sat	7.89E+01	sat	7.89E+01	sat	x	5.23E+03	nc	2.88E+01	5.77E+02
Methylene bromide	1.79E+02	nc	7.85E+02	nc	6.09E+02	nc	x	6.08E+01	nc	2.72E+02	5.44E+01
Methylene chloride	1.82E+02	ca	4.90E+02	ca	2.63E+03	sat	x	4.22E+01	ca	8.51E+03	1.70E+01
Molybdenum	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	3.70E+00	7.40E+01
Naphthalene	7.95E+01	nc	3.00E+02	nc	2.62E+02	nc	x	6.20E+00	nc	1.97E+02	3.94E+01
Nickel	1.56E+03	nc	2.27E+04	nc	6.19E+03	nc		7.30E+02	nc	4.77E+01	9.53E+02
Nitrate	1.00E+05	max	1.00E+05	max	1.00E+05	max		5.84E+04	nc	1.67E+01	3.35E+02
Nitrite	7.82E+03	nc	1.00E+05	max	3.10E+04	nc		3.65E+03	nc	7.63E+01	1.53E+01
Nitrobenzene	2.28E+01	nc	1.47E+02	nc	8.28E+01	nc	x	3.40E+00	nc	9.18E+04	1.84E+02
Nitroglycerin	3.47E+02	ca	1.37E+03	ca	1.17E+04	ca		4.74E+01	ca	2.80E+02	5.61E+01
N-Nitrosodiethylamine	3.24E+02	ca	1.28E+01	ca	1.09E+00	ca		4.42E+03	ca	8.73E+06	1.75E+04
N-Nitrosodimethylamine	9.54E+02	ca	3.76E+01	ca	1.86E+00	nc		1.30E+02	ca	1.17E+05	2.34E+04
N-Nitrosodi-n-butylamine	2.69E+01	ca	7.28E+01	ca	1.24E+01	ca	x	1.99E+02	ca	1.12E+05	2.24E+04
N-Nitrosodiphenylamine	9.93E+02	ca	3.91E+03	ca	4.66E+03	nc		1.35E+02	ca	2.86E+01	5.71E+00
N-Nitrosopyrrolidine	2.32E+00	ca	9.12E+00	ca	7.77E+01	ca		3.16E+01	ca	1.30E+04	2.60E+03
m-Nitrotoluene	5.69E+02	sat	5.69E+02	sat	5.69E+02	sat	x	1.22E+02	nc	3.30E+02	6.59E+01
o-Nitrotoluene	1.08E+01	ca	3.23E+01	ca	4.73E+02	ca	x	4.81E+01	ca	1.30E+04	2.61E+03
p-Nitrotoluene	1.46E+02	ca	4.37E+02	ca	1.55E+03	nc	x	6.51E+00	ca	1.76E+03	3.53E+02
Pentachlorobenzene	4.89E+01	nc	5.47E+02	nc	1.86E+02	nc		2.92E+01	nc	9.37E+02	1.87E+00

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Pentachlorophenol	2.98E+01	ca	1.00E+02	ca	1.02E+03	ca		5.53E+00	ca	5.87E-03	1.17E-01
Phenanthrene	1.83E+03	nc	2.05E+04	nc	6.99E+03	nc		1.10E+03	nc	2.32E+01	4.64E+02
Phenol	1.83E+04	nc	1.00E+05	max	6.99E+04	nc		1.10E+04	nc	2.37E+00	4.74E+01
Polychlorinatedbiphenyls											
Aroclor 1016	3.93E+00	nc	4.13E+01	nc	1.50E+01	nc		2.58E+00	nc	1.73E-01	3.45E+00
Aroclor 1221	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1232	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1242	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.24E-02	4.47E-01
Aroclor 1248	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
Aroclor 1254	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
Aroclor 1260	1.12E+00	nc	8.26E+00	ca	4.28E+00	nc		3.32E-01	ca	2.64E-01	5.28E+00
n-Propylbenzene	6.21E+01	sat	6.21E+01	sat	6.21E+01	sat	x	6.08E+01	nc	2.70E-01	5.40E+00
Propylene oxide	2.22E+01	ca	9.33E+01	ca	7.92E+02	nc	x	2.18E+00	ca	4.60E-04	9.20E-03
Pyrene	2.29E+03	nc	3.09E+04	nc	9.01E+03	nc	x	1.83E+02	nc	1.86E+01	3.73E+02
RDX	4.42E+01	ca	1.74E+02	ca	6.99E+02	nc		6.03E+00	ca	1.68E-03	3.36E-02
Selenium	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	9.52E-01	1.90E+01
Silver	3.91E+02	nc	5.68E+03	nc	1.55E+03	nc		1.83E+02	nc	1.57E+00	3.13E+01
Strontium	4.69E+04	nc	1.00E+05	max	1.00E+05	max		2.19E+04	nc	7.73E+02	1.55E+04
Styrene	1.00E+02	sat	1.00E+02	sat	1.00E+02	sat	x	1.62E+03	nc	5.23E-01	1.05E+01
1,2,4,5-Tetrachlorobenzene	1.83E+01	nc	2.08E+02	nc	6.99E+01	nc		1.10E+01	nc	2.14E-02	4.29E-01
1,1,1,2-Tetrachloroethane	4.32E+01	ca	1.14E+02	ca	2.11E+03	ca	x	4.27E+00	ca	1.25E-03	2.50E-02
1,1,2,2-Tetrachloroethane	5.55E+00	ca	1.46E+01	ca	2.71E+02	ca	x	5.46E-01	ca	1.60E-04	3.21E-03
Tetrachloroethene	1.25E+01	ca	3.16E+01	ca	1.34E+02	sat	x	4.32E+00	ca	2.87E-03	5.74E-02
Thallium	5.16E+00	nc	7.49E+01	nc	2.04E+01	nc		2.41E+00	nc	1.72E-01	3.43E+00
Toluene	2.52E+02	sat	2.52E+02	sat	2.52E+02	sat	x	2.27E+03	nc	1.08E+00	2.17E+01
Toxaphene	4.42E+00	ca	1.74E+01	ca	1.48E+02	ca		6.03E-01	ca	2.33E-01	4.65E+00
Tribromomethane	6.21E+02	ca	2.46E+03	ca	4.44E+03	nc		2.44E+01	ca	1.73E-01	3.47E+00
1,1,2-Trichloro-1,2,2-trifluoroethane	3.28E+03	sat	3.28E+03	sat	3.28E+03	sat	x	5.92E+04	nc	1.68E+02	3.36E+03
1,2,4-Trichlorobenzene	6.93E+01	nc	2.69E+02	nc	2.30E+02	nc	x	7.16E+00	nc	2.04E-02	4.08E-01
1,1,1-Trichloroethane	5.63E+02	sat	5.63E+02	sat	5.63E+02	sat	x	3.17E+03	nc	1.33E+00	2.65E+01
1,1,2-Trichloroethane	1.19E+01	ca	3.02E+01	ca	1.94E+02	nc	x	1.97E+00	ca	4.98E-04	9.95E-03
Trichloroethylene	6.38E-01	ca	1.56E+00	ca	3.36E+01	ca	x	2.77E-01	ca	1.00E-04	2.00E-03

Chemical	Residential Soil (mg/kg)	End- point	Industrial/ Occupational Soil (mg/kg)	End- point	Construction Worker Soil (mg/kg)	End- point	VOC	Tap Water (ug/L)	End- point	DAF 1 (mg/kg)	DAF 20 (mg/kg)
Trichlorofluoromethane	5.88E+02	nc	9.83E+02	sat	9.83E+02	sat	x	1.29E+03	nc	1.12E+00	2.23E+01
2,4,5-Trichlorophenol	6.11E+03	nc	6.84E+04	nc	2.33E+04	nc		3.65E+03	nc	7.13E+00	1.43E+02
2,4,6-Trichlorophenol	6.11E+00	nc	6.84E+01	nc	2.33E+01	nc		3.65E+00	nc	7.13E-03	1.43E-01
1,1,2-Trichloropropane	2.53E+01	nc	9.64E+01	nc	8.35E+01	nc	x	3.04E+01	nc	1.17E-02	2.35E-01
1,2,3-Trichloropropane	8.61E-02	ca	2.09E-01	ca	4.57E+00	ca	x	5.53E-02	ca	2.07E-05	4.14E-04
1,2,3-Trichloropropene	1.21E+00	nc	4.39E+00	nc	3.95E+00	nc	x	2.10E+00	nc	7.88E-04	1.58E-02
Triethylamine	4.90E+01	nc	2.33E+02	nc	1.69E+02	nc	x	1.21E+01	nc	2.14E-03	4.29E-02
1,2,4-Trimethylbenzene	5.80E+01	nc	2.13E+02	nc	1.90E+02	nc	x	1.23E+01	nc	7.09E-02	1.42E+00
1,3,5-Trimethylbenzene	2.48E+01	nc	6.92E+01	sat	6.92E+01	sat	x	1.23E+01	nc	1.77E-02	3.55E-01
2,4,6-Trinitrotoluene	3.06E+01	nc	3.42E+02	nc	1.17E+02	nc		1.83E+01	nc	5.34E-02	1.07E+00
Vanadium	7.82E+01	nc	1.14E+03	nc	3.10E+02	nc		3.65E+01	nc	3.65E+01	7.30E+02
Vinyl acetate	1.07E+03	nc	3.68E+03	sat	3.52E+03	nc	x	4.12E+02	nc	7.57E-02	1.51E+00
Vinyl bromide	2.85E+00	ca	6.84E+00	ca	1.93E+01	nc	x	1.18E+00	ca	4.71E-04	9.41E-03
Vinyl chloride (Child)	2.25E+00	ca					x	4.28E-01	ca	1.40E-04	2.80E-03
Vinyl chloride (adult)	4.37E+00	ca	1.40E+01	ca	1.82E+02	ca	x	8.33E-01	ca	2.72E-04	5.45E-03
m-Xylene	8.20E+01	sat	8.20E+01	sat	8.20E+01	sat	x	2.03E+02	nc	1.03E-01	2.06E+00
o-Xylene	9.95E+01	sat	9.95E+01	sat	9.95E+01	sat	x	7.30E+03	nc	4.07E+00	8.14E+01
Xylenes	8.20E+01	sat	8.20E+01	sat	8.20E+01	sat	x	2.03E+02	nc	1.03E-01	2.06E+00
Zinc	2.35E+04	nc	1.00E+05	max	9.29E+04	nc		1.10E+04	nc	6.82E+02	1.36E+04

Table A-2

Default Exposure Factors			
Symbol	Definition (units)	Default	Reference
CSF _o	Cancer slope factor oral (mg/kg-day) ⁻¹	Chem.-spec.	IRIS, HEAST, or NCEA
CSF _i	Cancer slope factor inhaled (mg/kg-day) ⁻¹	Chem.-spec.	IRIS, HEAST, or NCEA
RfD _o	Reference dose oral (mg/kg-day)	Chem.-spec.	IRIS, HEAST, or NCEA
RfD _i	Reference dose inhaled (mg/kg-day)	Chem.-spec.	IRIS, HEAST, or NCEA
TR	Target cancer risk	1E-05	NMED-specific value
THQ	Target hazard quotient	1	US EPA, 1989
BW	Body weight (kg)		
	-- adult	70	US EPA, 1989
	-- child	15	US EPA, 1991
AT	Averaging time (days)		
	-- carcinogens	25550	US EPA, 1989
	-- noncarcinogens	ED*365	
SA	Exposed surface area for soil/dust (cm ² /day)		US EPA, 1989
	-- adult resident	5700	US EPA, 1996a
	-- adult worker	3300	US EPA, 1996a
	-- child	2800	US EPA, 1989
AF	Adherence factor, soils (mg/cm ²)		US EPA, 1989
	-- adult resident	0.07	US EPA, 1996a
	-- adult worker	0.2	US EPA, 1996a
	-- child resident	0.2	US EPA, 1989
	-- construction worker	0.3	NMED-specific value
ABS	Skin absorption defaults (unitless):		
	-- semi-volatile organics	0.1	US EPA, 1989
	-- volatile organics	na	US EPA, 2003a
	-- inorganics	na	US EPA, 2000s
IRA	Inhalation rate (m ³ /day)		
	-- adult resident	20	US EPA, 1991
	-- adult worker	20	US EPA, 2001a
	-- child resident	10	Exposure Factors, (US EPA, 1997)
IRW	Drinking water ingestion rate (L/day)		
	-- adult	2	US EPA, 2004b
	-- child	1	US EPA, 2004b
IRS	Soil ingestion (mg/day)		
	-- adult resident	100	US EPA, 1991
	-- child resident	200	US EPA, 1991
	-- commercial/industrial worker	100	US EPA, 2001a
	-- construction worker	330	US EPA, 1991
EF	Exposure frequency (days/yr)		
	-- residential	350	US EPA, 1991
	-- commercial/industrial	225	US EPA, 2001a
	-- construction worker	250	NMED-specific value
ED	Exposure duration (years)		
	-- residential	30 ^a	US EPA, 1991)
	-- child	6	(US EPA, 1991)
	-- commercial/industrial	25	(US EPA, 1999)
	-- construction worker	1	NMED-specific value
	Age-adjusted factors for carcinogens		
IFSadj	Ingestion factor, soils ([mg-yr]/[kg-day])	114	US EPA, 2001a
SFSadj	Dermal factor, soils ([mg-yr]/[kg-day])	361	US EPA, 2001a
InhFadj	Inhalation factor, air ([m ³ -yr]/[kg-day])	11	By analogy to RAGS: Part B, (US EPA, 1991)
IFWadj	Ingestion factor, water ([L-yr]/[kg-day])	1.1	By analogy to RAGS: Part B, (US EPA, 1991)
PEF	Particulate emission factor (m ³ /kg)	Chem.-spec.	US EPA, 2001a
VFs	Volatilization factor for soil (m ³ /kg)	Chem.-spec.	US EPA, 2001a
VFW	Volatilization factor for water (L/m ³)	0.5	US EPA, 1991
Csat	Soil saturation concentration (mg/kg)	Chem.-spec.	US EPA, 2001a

^aExposure duration for lifetime residents is assumed to be 30 years total. For carcinogens, exposures are combined for children (6 years) and adults (24 years).

Chem.-spec. - Chemical-specific value

na - not applicable

RAGS - Risk Assessment Guidance for Superfund

IRIS - Integrated Risk Information System, USEPA, 2003b

HEAST - Health Effects Assessment Summary Tables, USEPA, 1997

NCEA - National Center for Environmental Assessment, Office of Research and Development (USEPA, 2003c)

NMED - New Mexico Environment Department

APPENDIX B

Table B-1: Physical and Chemical Properties

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Acenaphthene	154.21	1.6E-04	6.36E-03	4.21E-02	7.69E-06	4.90E+03	7.35E+00	4.24E+00	4.13E-07	1.93E+05	3.19E+01
Acetaldehyde	44	7.8E-05	3.20E-03	1.20E-01	1.40E-05	1.80E+01	2.70E-02	1.00E+06	2.28E-05	2.60E+04	2.01E+05
Acetone	58	3.9E-05	1.60E-03	1.20E-01	1.10E-05	5.80E-01	8.70E-04	1.00E+06	1.40E-05	3.31E+04	1.74E+05
Acrylonitrile	53	8.8E-05	3.60E-03	1.08E-01	1.34E-05	8.50E-01	1.28E-03	7.90E+04	2.64E-05	2.42E+04	1.38E+04
Acetophenone	120	1.1E-05	4.51E-04	6.00E-02	8.70E-06	4.62E+01	6.93E-02	6.10E+03	2.59E-06	7.71E+04	1.48E+03
Acrolein	56	1.2E-04	4.90E-03	1.05E-01	1.22E-05	2.10E+01	3.15E-02	2.10E+05	2.86E-05	2.32E+04	4.31E+04
Aldrin	365	1.7E-04	6.97E-03	1.32E-02	4.86E-06	2.45E+06	3.68E+03	1.80E-01			
Aluminum	26.98	2.4E-02	1.00E+00			1.43E+01	1.50E+03				
Anthracene	178	6.5E-05	2.67E-03	3.24E-02	7.74E-06	2.95E+04	4.43E+01	4.34E-02	2.73E-08	7.51E+05	1.93E+00
Antimony	121.75	2.4E-02	1.00E+00			1.43E+01	4.50E+01				
Arsenic	74.92	7.7E-01	3.16E+01			1.43E+01	2.90E+01				
Barium	137.33	2.4E-02	1.00E+00			1.43E+01	4.10E+01				
Benzene	78.1	5.6E-03	2.28E-01	8.80E-02	9.80E-06	5.89E+01	8.84E-02	1.75E+03	7.30E-04	4.59E+03	5.06E+02
Benzidine	184.23	7.0E-11	2.88E-09	3.40E-02	1.50E-05	2.74E+03	4.11E+00	3.22E+02			
Benzo(a)anthracene	228	3.3E-06	1.37E-04	5.10E-02	9.00E-06	3.98E+05	5.97E+02	9.40E-03			
Benzo(a)pyrene	250	1.1E-06	4.63E-05	4.30E-02	9.00E-06	1.02E+06	1.53E+03	1.62E-03			
Benzo(b)fluoranthene	252.3	1.1E-04	4.55E-03	2.26E-02	5.56E-06	1.23E+06	1.85E+03	1.50E-03			
Benzo(k)fluoranthene	252.3	8.3E-07	3.40E-05	2.26E-02	5.56E-06	1.23E+06	1.85E+03	8.00E-04			
Beryllium	9.01	2.4E-02	1.00E+00			1.43E+01	7.90E+02				
α-BHC	290.85	1.1E-05	4.35E-04	1.42E-02	7.34E-06	1.23E+03	1.85E+00	2.00E+00			
β-BHC	290.85	7.4E-07	3.05E-05	1.42E-02	7.34E-06	1.26E+03	1.89E+00	2.40E-01			
γ-BHC	290.85	1.4E-05	5.74E-04	1.42E-02	7.34E-06	1.07E+03	1.61E+00	6.80E+00			
1,1-Biphenyl	150	2.9E-04	1.20E-02	4.00E-02	8.20E-06	7.80E+03	1.17E+01	7.50E+00	4.50E-07	1.85E+05	8.91E+01
Bis(2-chloroethyl) ether	140	1.8E-05	7.38E-04	6.92E-02	7.53E-06	7.60E+01	1.14E-01	1.72E+04	2.90E-06	7.29E+04	4.94E+03
Bis(2-chloroisopropyl) ether	170	1.1E-04	4.60E-03	6.30E-02	6.40E-06	6.17E+01	9.25E-02	1.70E+03	1.23E-05	3.53E+04	4.53E+02
Bis(2-ethylhexyl) phthalate	390.54	1.0E-07	4.18E-06	3.51E-02	3.66E-06	1.51E+07	2.27E+04	3.40E-01			
Bis(chloromethyl) ether	120	2.0E-04	8.20E-03	8.90E-02	9.40E-06	1.20E+00	1.80E-03	2.20E+04	4.55E-05	1.84E+04	7.70E+03
Boron	10.81	2.4E-02	1.00E+00			1.43E+01	3.00E+00				
Bromobenzene	157.02	3.7E-03	1.50E-01	7.30E-02	8.70E-06	2.20E+02	3.30E-01	4.70E+02	2.21E-04	8.36E+03	2.45E+02
Bromodichloromethane	164	1.6E-03	6.56E-02	2.98E-02	1.06E-05	1.00E+02	1.50E-01	6.74E+03	6.31E-05	1.56E+04	2.23E+03

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Bromomethane	94.95	6.2E-03	2.56E-01	7.28E-02	1.21E-05	9.00E+00	1.35E-02	1.52E+04	9.03E-04	4.13E+03	3.31E+03
1,3-Butadiene	54	1.8E-01	7.30E+00	9.80E-02	1.10E-05	1.20E+02	1.80E-01	7.40E+02	6.24E-03	1.57E+03	9.10E+02
2-Butanone (MEK)	72	2.7E-05	1.10E-03	9.00E-02	9.80E-06	4.50E+00	6.75E-03	2.70E+05	7.91E-06	4.41E+04	4.87E+04
tert-Butyl methyl ether (MTBE)	88.2	5.9E-04	2.40E-02	8.00E-02	1.00E-05	6.00E+00	9.00E-03	1.50E+05	1.11E-04	1.18E+04	2.78E+04
n-Butylbenzene	130	1.3E-02	5.40E-01	7.50E-02	7.80E-06	2.80E+03	4.20E+00	1.40E+01	9.56E-05	1.27E+04	6.21E+01
sec-Butylbenzene	130	1.9E-02	7.70E-01	7.50E-02	7.80E-06	2.20E+03	3.30E+00	1.70E+01	1.70E-04	9.53E+03	6.06E+01
tert-Butylbenzene	130	1.3E-02	5.20E-01	7.50E-02	7.80E-06	2.20E+03	3.30E+00	3.00E+01	1.16E-04	1.15E+04	1.06E+02
Cadmium	112.41	2.4E-02	1.00E+00			1.43E+01	7.50E+01				
Carbon disulfide	76	2.9E-02	1.20E+00	1.04E-01	1.00E-05	4.60E+01	6.90E-02	1.19E+03	3.42E-03	2.12E+03	4.60E+02
Carbon tetrachloride	154	3.0E-02	1.25E+00	7.80E-02	8.80E-06	1.74E+02	2.61E-01	7.93E+02	1.76E-03	2.96E+03	4.63E+02
Chlordane	409.8	4.9E-05	1.99E-03	1.18E-02	4.37E-06	1.20E+05	1.80E+02	5.60E-02			
2-Chloroacetophenone	154.59	3.7E-02	1.50E+00	7.20E-02	6.80E-06	3.30E+02	4.95E-01	4.70E+02	1.34E-03	3.39E+03	3.99E+02
2-Chloro-1,3-butadiene	88	3.2E-02	1.30E+00	1.10E-01	1.10E-05	5.00E+01	7.50E-02	7.40E+02	3.75E-03	2.03E+03	2.99E+02
1-Chloro-1,1-difluoroethane	100.5	1.0E-01	4.10E+00	8.00E-02	1.10E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
Chlorobenzene	113	3.7E-03	1.50E-01	7.30E-02	8.70E-06	2.19E+02	3.29E-01	4.72E+02	2.21E-04	8.34E+03	2.45E+02
1-Chlorobutane	92.57	3.2E-02	1.30E+00	1.10E-01	1.10E-05	5.00E+01	7.50E-02	7.40E+02	3.75E-03	2.03E+03	2.99E+02
Chlorodifluoromethane	86.47	1.0E-01	4.10E+00	8.00E-02	1.10E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
Chloroethane	65	1.1E-02	4.50E-01	1.00E-01	1.20E-05	1.50E+01	2.25E-02	5.70E+03	1.90E-03	2.85E+03	1.42E+03
Chloroform	120	3.7E-03	1.50E-01	1.04E-01	1.00E-05	3.98E+01	5.97E-02	7.92E+03	6.53E-04	4.86E+03	1.99E+03
Chloromethane	51	2.4E-02	9.80E-01	1.09E-01	6.50E-06	3.50E+01	5.25E-02	8.20E+03	3.29E-03	2.16E+03	2.82E+03
β-Chloronaphthalene	160	3.2E-04	1.30E-02	3.50E-02	8.80E-06	1.60E+03	2.40E+00	1.20E+01	1.98E-06	8.81E+04	3.09E+01
o-Chloronitrobenzene	153.33	4.4E-05	1.80E-03	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	6.54E-06	4.85E+04	5.69E+02
p-Chloronitrobenzene	153.33	5.1E-05	2.10E-03	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	7.42E-06	4.56E+04	5.69E+02
2-Chlorophenol	130	3.9E-04	1.60E-02	5.01E-02	9.46E-06	4.00E+02	6.00E-01	2.20E+04	1.13E-05	3.69E+04	1.71E+04
2-Chloropropane	78.54	2.3E-03	9.40E-02	8.00E-02	1.00E-05	5.10E+01	7.65E-02	2.70E+03	3.03E-04	7.13E+03	7.05E+02
o-Chlorotoluene	172.57	3.4E-03	1.40E-01	7.20E-02	8.70E-06	1.60E+02	2.40E-01	4.70E+02	2.46E-04	7.91E+03	2.02E+02
Chromium III	52						1.80E+06				
Chromium VI	52						1.90E+01				
Chrysene	228.28	9.5E-05	3.88E-03	2.48E-02	6.21E-06	3.98E+05	5.97E+02	1.60E-03	2.10E-09	2.71E+06	9.55E-01
Cobalt	58.93	2.4E-02	1.00E+00			1.43E+01	4.50E+01				
Copper	63.55	2.4E-02	1.00E+00			1.43E+01	3.50E+01				
Crotonaldehyde	70.09	2.4E-01	1.00E+01	9.10E-02	1.00E-05	8.40E+02	1.26E+00	2.00E+01	3.67E-03	2.05E+03	5.27E+01

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _a (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Cumene (isopropylbenzene)	120	1.2E+00	4.90E+01	7.50E-02	7.10E-06	2.20E+02	3.30E-01	6.10E+01	6.22E-03	1.57E+03	3.89E+02
Cyanide	27.03		5.44E-03			2.71E+00	9.90E+00				
Cyanogen	52	5.1E-03	2.10E-01	2.00E-01	1.40E-05	1.40E+00	2.10E-03	8.50E+03	2.20E-03	2.64E+03	1.71E+03
Cyanogen bromide	52	5.1E-03	2.10E-01	9.60E-02	1.00E-05	2.60E+01	3.90E-02	8.50E+03	8.93E-04	4.15E+03	2.02E+03
Cyanogen chloride	52	5.1E-03	2.10E-01	9.60E-02	1.00E-05	2.60E+01	3.90E-02	8.50E+03	8.93E-04	4.15E+03	2.02E+03
DDD	320	4.0E-06	1.64E-04	1.69E-02	4.76E-06	1.00E+06	1.50E+03	9.00E-02			
DDE	318	2.1E-05	8.61E-04	1.44E-02	5.87E-06	4.47E+06	6.71E+03	1.20E-01			
DDT	354.5	8.1E-06	3.32E-04	1.37E-02	4.95E-06	2.63E+06	3.95E+03	2.50E-02			
Dibenz(a,h)anthracene	278.3	1.5E-08	6.03E-07	2.02E-02	5.18E-06	3.80E+06	5.70E+03	2.49E-03			
Dibenzofuran	284.8	1.3E-05	5.33E-04	6.01E-02	1.00E-05	7.76E+03	1.16E+01	3.10E+00	6.20E-08	4.98E+05	3.66E+01
1,2-Dibromo-3-chloropropane	240	1.5E-04	6.00E-03	8.00E-02	8.00E-06	1.70E+02	2.55E-01	1.20E+03	1.24E-05	3.52E+04	5.15E+02
Dibromochloromethane	210	8.5E-04	3.50E-02	2.00E-02	1.00E-05	6.30E+01	9.45E-02	4.40E+03	2.84E-05	2.33E+04	1.20E+03
1,2-Dibromoethane	188	3.2E-04	1.30E-02	7.33E-02	8.06E-06	2.80E+01	4.20E-02	3.40E+03	4.75E-05	1.80E+04	7.37E+02
1,4-Dichloro-2-butene	130	2.7E-04	1.10E-02	7.30E-02	8.10E-06	4.80E+01	7.20E-02	2.80E+03	3.54E-05	2.09E+04	6.91E+02
1,2-Dichlorobenzene	147	1.9E-03	7.79E-02	6.90E-02	7.90E-06	3.80E+01	5.70E-02	1.56E+02	2.36E-04	8.07E+03	3.74E+01
1,3-Dichlorobenzene	147	1.9E-03	7.80E-02	6.90E-02	7.90E-06	3.80E+01	5.70E-02	1.56E+02	2.37E-04	8.07E+03	3.74E+01
1,4-Dichlorobenzene	147	2.4E-03	9.96E-02	6.90E-02	7.90E-06	6.16E+02	9.24E-01	7.38E+01	6.51E-05	1.54E+04	8.19E+01
3,3-Dichlorodifluoromethane	253.13	4.0E-09	1.64E-07	1.94E-02	6.74E-06	7.24E+02	1.09E+00	3.11E+00			
1,1-Dichloroethane	120	1.0E-01	4.10E+00	8.00E-02	1.05E-05	5.80E+01	8.70E-02	2.80E+02	4.67E-03	1.82E+03	2.11E+02
1,2-Dichloroethane	99	5.6E-03	2.30E-01	7.42E-02	1.05E-05	5.30E+01	7.95E-02	5.06E+03	6.40E-04	4.90E+03	1.42E+03
cis-1,2-Dichloroethene	99	9.8E-04	4.01E-02	1.04E-01	9.90E-06	3.80E+01	5.70E-02	8.52E+03	1.87E-04	9.07E+03	2.00E+03
trans-1,2-Dichloroethene	97	4.1E-03	1.67E-01	7.36E-02	1.13E-05	3.55E+01	5.33E-02	3.50E+03	5.25E-04	5.42E+03	8.63E+02
1,1-Dichloroethene	97	9.4E-03	3.85E-01	7.07E-02	1.19E-05	3.80E+01	5.70E-02	6.30E+03	1.04E-03	3.85E+03	1.74E+03
2,4-Dichlorophenol	163	2.7E-02	1.10E+00	9.00E-02	1.00E-05	6.50E+01	9.75E-02	2.30E+03	2.60E-03	2.43E+03	9.27E+02
1,2-Dichloropropane	110	3.2E-06	1.30E-04	3.46E-02	8.77E-06	1.47E+02	2.21E-01	4.50E+03			
1,3-Dichloropropene	111	2.7E-03	1.10E-01	7.80E-02	8.70E-06	4.40E+01	6.60E-02	2.80E+03	3.58E-04	6.56E+03	7.07E+02
Dicyclopentadiene	130	1.8E-02	7.26E-01	6.26E-02	1.00E-05	2.70E+01	4.05E-02	2.80E+03	1.60E-03	3.11E+03	8.43E+02
Dieldrin	381	1.1E-02	4.40E-01	6.70E-02	1.00E-05	5.70E+02	8.55E-01	1.80E+03	2.86E-04	7.34E+03	1.95E+03
Diethyl phthalate	222.2	1.5E-05	6.19E-04	1.25E-02	4.74E-06	2.14E+04	3.21E+01	1.95E-01			
Dimethyl phthalate	194.19	4.5E-07	1.85E-05	2.56E-02	6.35E-06	2.88E+02	4.32E-01	1.08E+03			
Di-n-butyl phthalate	278.34	4.1E-07	1.70E-05	5.68E-02	6.29E-06	3.71E+01	5.56E-02	4.00E+03			
		9.4E-10	3.85E-08	4.38E-02	7.88E-06	3.39E+04	5.09E+01	1.12E+01			

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
2,4-Dimethylphenol	122.16	2.0E-06	8.20E-05	5.84E-02	8.69E-06	2.09E+02	3.14E-01	7.87E+03			
4,6-Dinitro-o-cresol	198.14	1.4E-06	5.72E-05	2.93E-02	6.91E-06	6.02E+02	9.02E-01	1.98E+02			
2,4-Dinitrophenol	184.11	8.6E-08	3.52E-06	2.73E-02	9.06E-06	3.64E+02	5.46E-01	2.79E+03			
2,4-Dinitrotoluene	182.14	9.3E-08	3.80E-06	2.03E-01	7.06E-06	9.55E+01	1.43E-01	2.70E+02			
1,2-Diphenylhydrazine	184.24	4.6E-11	1.90E-09	3.17E-02	7.36E-06	3.48E+03	5.22E+00	2.21E+02			
Endosulfan	406.95	1.1E-05	4.59E-04	1.15E-02	4.55E-06	2.14E+03	3.21E+00	5.10E-01			
Endrin	381	7.5E-06	3.08E-04	1.25E-02	4.74E-06	1.23E+04	1.85E+01	2.50E-01			
Epichlorohydrin	93	3.2E-05	1.30E-03	8.80E-02	9.80E-06	3.50E+00	5.25E-03	6.00E+04	8.88E-06	4.17E+04	1.07E+04
Ethyl acetate	88	1.4E-04	5.70E-03	7.30E-02	9.70E-06	5.90E+01	8.85E-02	8.00E+04	1.81E-05	2.92E+04	2.10E+04
Ethyl acrylate	100.1	2.4E-01	9.80E+00	9.10E-02	8.60E-06	8.40E+02	1.26E+00	2.00E+01	3.63E-03	2.06E+03	5.22E+01
Ethyl chloride	65	1.1E-02	4.50E-01	1.00E-01	1.20E-05	1.50E+01	2.25E-02	5.70E+03	1.90E-03	2.85E+03	1.42E+03
Ethyl ether	74.12	1.3E-05	5.30E-04	7.00E-02	9.30E-06	1.40E+01	2.10E-02	1.00E+04	3.90E-06	6.29E+04	1.94E+03
Ethyl methacrylate	114.12	2.4E-01	1.00E+01	9.10E-02	8.60E-06	8.40E+02	1.26E+00	2.00E+01	3.67E-03	2.05E+03	5.27E+01
Ethylbenzene	106.2	7.9E-03	3.23E-01	7.50E-02	7.80E-06	3.63E+02	5.45E-01	1.69E+02	3.36E-04	6.77E+03	1.28E+02
Ethylene oxide	44	7.6E-05	3.10E-03	1.30E-01	1.50E-05	2.20E+00	3.30E-03	1.00E+06	2.72E-05	2.38E+04	1.77E+05
Fluoranthene	202.3	1.6E-05	6.60E-04	3.02E-02	6.35E-06	1.07E+05	1.61E+02	2.06E-01			
Fluorene	166.21	7.8E-05	3.20E-03	6.10E-02	7.88E-06	7.90E+03	1.19E+01	1.90E+00	1.96E-07	2.80E+05	2.28E+01
Fluoride	38	2.4E-02	1.00E+00			1.43E+01	1.50E+02	1.69E+00			
Furan	68	5.4E-03	2.20E-01	1.00E-01	1.20E-05	1.20E+01	1.80E-02	1.00E+04	1.06E-03	3.81E+03	2.18E+03
Heptachlor	373.5	1.1E-03	4.47E-02	1.12E-02	5.69E-06	1.41E+06	2.12E+03	1.80E-01			
Hexachlorobenzene	284.8	1.3E-03	5.41E-02	5.42E-02	5.91E-06	5.50E+04	8.25E+01	6.20E+00			
Hexachloro-1,3-butadiene	260.76	8.1E-03	3.34E-01	5.61E-02	6.16E-06	5.37E+04	8.06E+01	3.23E+00			
Hexachlorocyclopentadiene	272.75	2.7E-02	1.11E+00	1.61E-02	7.21E-06	2.00E+05	3.00E+02	1.80E+00			
Hexachloroethane	236.74	3.9E-03	1.59E-01	2.50E-03	6.80E-06	1.78E+03	2.67E+00	5.00E+01			
n-Hexane	86	1.2E-01	5.00E+00	2.00E-01	7.80E-06	8.90E+02	1.34E+00	1.80E+01	5.01E-03	1.75E+03	3.80E+01
HMX	296.2	1.0E-11	4.10E-10			1.85E+03	2.78E+00	2.56E+03			
Hydrogen cyanide	27	1.3E-04	5.30E-03	1.80E-01	1.80E-05	1.70E+01	2.55E-02	1.00E+06	5.36E-05	1.69E+04	1.99E+05
Indeno(1,2,3-c,d)pyrene	276.3	1.6E-06	6.56E-05	1.90E-02	5.66E-06	3.47E+06	5.21E+03	2.20E-05			
Iron	55.84	2.4E-02	1.00E+00			1.43E+01	2.50E+01				
Isobutanol	74	1.2E-05	4.90E-04	8.60E-02	9.30E-06	6.20E+01	9.30E-02	8.50E+04	3.04E-06	7.12E+04	2.26E+04
Isophorone	138.21	6.6E-06	2.72E-04	6.23E-02	6.76E-06	4.68E+01	7.02E-02	1.20E+04			
Lead	207.2	2.4E-02	1.00E+00			1.43E+01	9.00E+02				

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
lead (Tetraethyl-)	64.52										
Maleic hydrazide	110	6.8E-03	2.70E-01	9.00E-02	1.10E-05	4.20E+01	6.30E-02	6.00E+03	9.52E-04	4.02E+03	1.61E+03
Manganese	54.94	2.4E-02	1.00E+00			1.43E+01	6.50E+01				
Mercury (elemental)	200.59	2.4E-02	1.00E+00	3.07E-02	6.30E-06	1.43E+01	5.20E+01				
Mercury (methyl)	215.62	1.1E-02	4.67E-01			1.43E+01					
Methacrylonitrile	67.09	8.8E-05	3.60E-03	1.10E-01	1.30E-05	8.40E-01	1.26E-03	7.90E+04	2.66E-05	2.41E+04	1.38E+04
Methomyl	160	3.9E-02	1.60E+00	6.90E-02	1.00E-05	1.50E+01	2.25E-02	1.70E+05	3.03E-03	2.25E+03	6.59E+04
Methyl acetate	74.08	2.0E-05	8.40E-04	1.00E-01	1.00E-05	2.20E+00	3.30E-03	1.00E+06	7.22E-06	4.62E+04	1.77E+05
Methyl acrylate	86.09	2.4E-01	9.80E+00	9.10E-02	8.60E-06	8.40E+02	1.26E+00	6.00E+01	3.63E-03	2.06E+03	1.57E+02
Methyl isobutyl ketone	100	1.4E-04	5.70E-03	7.50E-02	7.80E-06	1.30E+02	1.95E-01	1.90E+04	1.30E-05	3.45E+04	7.01E+03
Methyl methacrylate	100	3.4E-04	1.40E-02	7.70E-02	8.60E-06	1.30E+01	1.95E-02	1.50E+04	5.98E-05	1.61E+04	2.92E+03
Methyl styrene (alpha)	118.18	2.3E-03	9.40E-02	7.10E-02	8.00E-06	3.60E+02	5.40E-01	3.00E+02	9.69E-05	1.26E+04	2.17E+02
Methyl styrene (mixture)	118.18	2.3E-03	9.40E-02	7.10E-02	8.00E-06	3.60E+02	5.40E-01	3.00E+02	9.69E-05	1.26E+04	2.17E+02
Methylcyclohexane	98	4.4E-01	1.80E+01	7.00E-02	9.00E-06	2.20E+03	3.30E+00	1.40E+01	2.37E-03	2.55E+03	7.89E+01
Methylene bromide	170	9.0E-04	3.70E-02	8.00E-02	8.00E-06	1.80E+02	2.70E-01	1.20E+04	6.99E-05	1.48E+04	5.37E+03
Methylene chloride	85	2.2E-03	9.00E-02	1.00E-01	1.20E-05	1.20E+01	1.80E-02	1.30E+04	4.69E-04	5.73E+03	2.63E+03
Molybdenum	95.94	2.4E-02	1.00E+00			1.43E+01	2.00E+01				
Naphthalene	128.16	4.8E-04	1.98E-02	5.90E-02	7.50E-06	2.00E+03	3.00E+00	3.10E+01	3.94E-06	6.25E+04	9.84E+01
Nickel	58.71	2.4E-02	1.00E+00			1.43E+01	6.50E+01				
Nitrate	101.1	2.4E-02	1.00E+00			1.43E+01					
Nitrite	46	2.0E-07	8.38E-06			2.37E+01	3.56E-02				
Nitrobenzene	120	2.4E-05	9.84E-04	7.60E-02	8.60E-06	6.46E+01	9.69E-02	2.10E+03	4.16E-06	6.09E+04	5.68E+02
Nitroglycerin	227.08	6.1E-03	2.50E-01			2.60E+02	3.90E-01	1.80E+03			
N-Nitrosodiethylamine	102.14	3.7E-06	1.50E-04	6.48E-02	9.13E-06	1.20E+03	1.80E+00	1.06E+05			
N-Nitrosodimethylamine	74.08	1.4E-01	5.90E+00	3.12E-02	6.35E-06	3.82E+01	5.73E-02	1.00E+06			
N-Nitrosodi-n-butylamine	158.2	3.2E-04	1.31E-02	5.80E-02	9.72E-06	2.60E+02	3.90E-01	1.27E+03	1.48E-05	3.23E+04	7.17E+02
N-Nitrosodiphenylamine	198.23	5.0E-06	2.05E-04	3.12E-02	6.35E-06	1.29E+03	1.94E+00	3.51E+01			7.40E+01
N-Nitrosopyrrolidine	100.2	4.9E-08	2.00E-06			1.59E+02	2.38E-01	1.00E+06			
m-Nitrotoluene	137.1	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
o-Nitrotoluene	137.13	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
p-Nitrotoluene	137.1	2.4E-05	9.80E-04	7.60E-02	8.60E-06	6.50E+01	9.75E-02	2.10E+03	4.14E-06	6.10E+04	5.69E+02
Pentachlorobenzene	250.32	7.1E-03	2.90E-01	5.70E-02	6.30E-06	2.00E+03	3.00E+00	8.31E+02			

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Pentachlorophenol	266.34	2.4E-08	1.00E-06	5.60E-02	6.10E-06	5.92E+02	8.88E-01	1.95E+03			
Phenanthrene	178.2	2.3E-05	9.40E-04			1.40E+04	2.10E+01	1.15E+00			
Phenol	94	4.0E-07	1.63E-05	8.20E-02	9.10E-06	2.88E+01	4.32E-02	8.28E+04			
Polychlorinated biphenyls											
Aroclor 1016	variable	4.2E-02	1.73E+00	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1221	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1232	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1242	variable	1.8E-08	7.40E-07	1.75E-02	8.00E-06	4.48E+04	6.72E+01	2.77E-01			
Aroclor 1248	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
Aroclor 1254	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
Aroclor 1260	variable	1.8E-08	7.40E-07	5.70E+03	6.00E-01	5.30E+05	7.95E+02	2.77E-01			
n-Propylbenzene	120.19	1.3E-02	5.40E-01	7.50E-02	7.80E-06	2.80E+03	4.20E+00	1.40E+01	9.56E-05	1.27E+04	6.21E+01
Propylene oxide	58	8.5E-05	3.50E-03	1.20E-01	1.30E-05	2.50E+01	3.75E-02	4.80E+05	2.33E-05	2.57E+04	1.01E+05
Pyrene	200	1.1E-05	4.51E-04	2.72E-02	7.24E-06	6.80E+04	1.02E+02	1.35E-01	4.07E-09	1.95E+06	1.38E+01
RDX	222.12	6.3E-08	2.60E-06			7.00E+01	1.05E-01	5.97E+01			
Selenium	78.96	9.7E-03	3.98E-01			1.43E+01	5.00E+00				
Silver	107.87	2.4E-02	1.00E+00			1.43E+01	8.30E+00				
Strontium	87.62	2.4E-02	1.00E+00			1.43E+01	3.50E+01				
Styrene	100	2.7E-03	1.10E-01	7.10E-02	8.00E-06	9.10E+01	1.37E-01	3.10E+02	2.54E-04	7.78E+03	1.00E+02
1,2,4,5-Tetrachlorobenzene	215.89	1.0E-03	4.10E-02	2.11E-02	8.76E-06	1.19E+03	1.78E+00	5.95E-01			
1,1,1,2-Tetrachloroethane	167.85	3.4E-04	1.41E-02	7.10E-02	7.90E-06	7.90E+01	1.19E-01	2.97E+03	3.68E-05	2.05E+04	8.72E+02
1,1,2,2-Tetrachloroethane	169.86	3.4E-04	1.40E-02	7.10E-02	7.90E-06	7.90E+01	1.19E-01	2.97E+03	3.65E-05	2.05E+04	8.72E+02
Tetrachloroethene	170	1.8E-02	7.54E-01	7.20E-02	8.20E-06	2.70E+02	4.05E-01	2.00E+02	8.54E-04	4.25E+03	1.34E+02
Thallium	204.37	2.4E-02	1.00E+00			1.43E+01	7.10E+01				
Toluene	92	6.6E-03	2.72E-01	8.70E-02	8.60E-06	1.82E+02	2.73E-01	5.28E+02	5.19E-04	5.45E+03	2.52E+02
Toxaphene	414	6.0E-06	2.46E-04	1.16E-02	4.34E-06	2.57E+05	3.86E+02	7.40E-01			
Tribromomethane	252.73	6.6E-04	2.70E-02	1.49E-02	1.03E-05	8.70E+01	6.92E+00	3.10E+03	6.51E-07	1.54E+05	2.20E+04
1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	5.2E-01	2.14E+01	2.88E-02	8.07E-06	1.60E+02	2.40E-01	1.10E+03	2.23E-03	2.63E+03	3.28E+03
1,2,4-Trichlorobenzene	181	1.4E-03	5.82E-02	3.00E-02	8.23E-06	1.78E+03	2.67E+00	3.00E+02	6.53E-06	4.86E+04	8.55E+02
1,1,1-Trichloroethane	130	1.7E-02	7.05E-01	7.80E-02	8.80E-06	1.10E+02	1.65E-01	1.33E+03	1.37E-03	3.35E+03	5.63E+02
1,1,2-Trichloroethane	133	9.1E-04	3.74E-02	7.80E-02	8.80E-06	5.01E+01	7.52E-02	4.42E+03	1.22E-04	1.12E+04	1.12E+03

Chemical	MW (g/mole)	H (atm- m ³ /mole)	H' (dimensionless)	D _a (cm ² /s)	D _w (cm ² /s)	K _{oc} (cm ³ /g)	K _d (cm ³ /g)	S (mg/L- water)	D _A (cm ² /s)	VF (m ³ /kg)	SAT (mg/kg)
Trichloroethylene	131	1.0E-02	4.22E-01	7.90E-02	9.10E-06	9.40E+01	1.41E-01	1.10E+03	9.61E-04	4.00E+03	4.01E+02
Trichlorofluoromethane	140	9.8E-02	4.00E+00	8.70E-02	1.30E-05	1.60E+02	2.40E-01	1.10E+03	4.15E-03	1.93E+03	9.83E+02
2,4,5-Trichlorophenol	197.46	4.4E-06	1.80E-04	2.91E-02	7.03E-06	1.19E+03	1.78E+00	1.20E+03			
2,4,6-Trichlorophenol	197.46	7.8E-06	3.20E-04	3.18E-02	6.25E-06	1.19E+03	1.78E+00	8.00E+02			
1,1,2-Trichloropropane	147.43	2.9E-02	1.20E+00	4.00E-02	9.30E-06	5.10E+01	7.65E-02	2.70E+03	1.29E-03	3.45E+03	1.06E+03
1,2,3-Trichloropropane	147.43	2.7E-02	1.10E+00	7.10E-02	7.90E-06	5.10E+01	7.65E-02	2.70E+03	2.17E-03	2.67E+03	1.03E+03
1,2,3-Trichloropropene	145.42	2.7E-02	1.10E+00	7.10E-02	7.90E-06	5.10E+01	7.65E-02	2.70E+03	2.17E-03	2.67E+03	1.03E+03
Triethylamine	101.19	9.0E-05	3.70E-03	1.20E-01	1.30E-05	2.20E+00	3.30E-03	1.00E+06	2.92E-05	2.30E+04	1.77E+05
1,2,4-Trimethylbenzene	120	5.6E-03	2.30E-01	7.50E-02	7.10E-06	3.70E+03	5.55E+00	2.60E-01	3.14E-05	2.21E+04	1.50E+00
1,3,5-Trimethylbenzene	120	7.8E-03	3.20E-01	7.50E-02	7.10E-06	8.20E+02	1.23E+00	4.80E+01	1.75E-04	9.40E+03	6.92E+01
2,4,6-Trinitrotoluene	227.13	4.6E-07	1.90E-05	2.45E-02	6.36E-06	1.83E+03	2.75E+00	1.30E+02			
Vanadium	50.94	2.4E-02	1.00E+00			1.43E+01	1.00E+03				
Vinyl acetate	86	5.1E-04	2.10E-02	8.50E-02	9.20E-06	5.30E+00	7.95E-03	2.00E+04	1.04E-04	1.22E+04	3.68E+03
Vinyl bromide	106.95	6.3E-03	2.60E-01	1.00E-01	1.20E-05	1.30E+02	1.95E-01	1.80E+04	6.84E-04	4.75E+03	7.19E+03
Vinyl chloride	63	2.7E-02	1.11E+00	1.10E-01	1.20E-06	1.86E+01	2.79E-02	2.80E+03	3.87E-03	1.99E+03	9.36E+02
Vinyl chloride	63	2.7E-02	1.11E+00	1.10E-01	1.20E-06	1.86E+01	2.79E-02	2.80E+03	3.87E-03	1.99E+03	9.36E+02
m-Xylene	106	7.3E-03	3.01E-01	7.00E-02	7.80E-06	2.00E+02	3.00E-01	1.61E+02	4.34E-04	5.96E+03	8.20E+01
o-Xylene	106	5.2E-03	2.13E-01	8.70E-02	1.00E-05	2.40E+02	3.60E-01	1.78E+02	3.48E-04	6.65E+03	9.95E+01
Xylenes	106	7.3E-03	3.00E-01	7.00E-02	7.80E-06	2.00E+02	3.00E-01	1.61E+02	4.33E-04	5.96E+03	8.20E+01
Zinc	65.38	2.4E-02	1.00E+00			1.43E+01	6.20E+01				

Notes:

MW – Molecular weight

H' – Dimensionless Henry's Law Constant

D_w – Diffusivity in water

K_d – Soil-water partition coefficient

D_A – Apparent diffusivity (calculated for VOCs only)

SAT – Soil saturation limit (calculated for VOCs only)

H – Henry's Law Constant

D_a – Diffusivity in air

K_{oc} – Soil organic carbon partition coefficient

S – Solubility in water

VF – Volatilization factor (calculated for VOCs only)

VOC – Volatile organic compound

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, September 21, 2009 10:59 AM
To: 'Rajen, Gaurav'; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: RE: Final report - Tank 116 spill

Raj:

Re: Final Report Section 4.0 Conclusions below.

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

Approved. Please provide a schedule for installing the perforated pipes as proposed and notify the agencies when the pipes are installed in accordance with the schedule.

Please contact me if you have questions. Thank you.

Please be advised that NMOCD approval of this corrective action does not relieve Western Refining Southwest, Inc.- Gallup Refinery of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve the Gallup Refinery of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [mailto:Gaurav.Rajen@wnr.com]
Sent: Tuesday, August 25, 2009 1:58 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: Final report - Tank 116 spill

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Dear Carl:

It is a pleasure to send you our final report for our Tank 116 spill of Ultra Low Sulfur Diesel which we have cleaned up. Two paper copies will go out in the mail today. Electronic copies are attached.

As you will note in the report, we excavated soil from within our berm area up to two feet. As there are active pipelines in the area, and ongoing work activity, we found it difficult to excavate any further near the pipelines, and had to cover our excavation with clean soil to prevent any hazard to workers in the area. This covering was done before our second set of laboratory results had arrived, for safety reasons. Our first set of laboratory results showed levels of DRO around 50,000 ppm. After excavation the DRO levels were of the order of 4000-6000 ppm (no BTEX was detected). As these levels were below 2 feet, we believe they did not come from the recent Tank 116 spill. We have conducted a small test at one of these locations of passive venting, using a perforated pipe to get air into the ground. The levels below the perforated pipe have fallen from 4700 ppm to 190 ppm. With your concurrence, we could now place more such perforated pipes in the area and we believe we will be able to reduce all the areas that were found to have DRO levels around 4000-6000 ppm to below concern. If we place many such perforated pipes we will also get concurrence (as needed) from the NMED's Air Quality Bureau.

We look forward to your response at your earliest convenience,

Sincerely,

Gaurav Rajen

This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Tuesday, September 15, 2009 9:46 AM
To: Riege, Ed; Larsen, Thurman
Cc: Kieling, John, NMENV; Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Martinez, Cynthia, NMENV
Subject: 9/5/09 API overflow report
Attachments: GRCC 9_5_09 formal rpt API overflow.pdf

Ed and Beck

The hard copy will go out in the mail today.

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

September 15, 2009

Mr. Ed Riege
Environmental Superintendent
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

Mr. Beck Larsen
Environmental Engineer
Western Refining, Southwest Inc.,
Gallup Refinery
Route 3 Box 7
Gallup, New Mexico 87301

**SUBJECT: FORMAL REPORT SUBMITTAL TO THE
SEPTEMBER 5, 2009 API SEPARATOR OVERFLOW
WESTERN REFINING, SOUTHWEST INC., GALLUP REFINERY
EPA ID NO. NMD000333211
HWB-GRCC-MISC**

Dear Messrs Riege and Larsen:

The New Mexico Environment Department (NMED) requires Western Refining Southwest Inc., Gallup Refinery (the Permittee) to submit a formal report summarizing the events and actions taken to address the API separator overflow which occurred on September 5, 2009. This spill released K051, F038, and potentially D018 hazardous wastes into the environment. As a reminder, the Permittee must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link:
<http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf>.

The Permittee met the 24-hour oral reporting requirements by contacting Steve Connolly, the NMED Incident Response Coordinator. When reporting all future spills, the facility may continue to contact Steve Connolly; however, the Permittee must also contact the Project Leader for Gallup (Hope Monzeglio) of the Hazardous Waste Bureau.

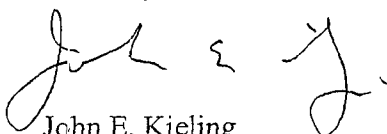
Mr. Ed Riege
Gallup Refinery
September 15, 2009
Page 2 of 2

The formal report addressing the September 5, 2009 API separator overflow must describe the following:

- a. The incident (how the overflow occurred).
- b. The volume of overflow and how this value was determined.
- c. All cleanup activities. Describe the methods and procedures of the cleanup, what activities were conducted (e.g., soil removal methods, waste management, sample collection), and include the volume of soil removed and any chemical analytical results from sampling.
- d. The hazardous wastes that were potentially released to the environment.
- e. The activities that were conducted to demonstrate the spill was cleaned up.
- f. Disposal activities.
- g. The steps Gallup will implement to ensure overflows to the API separator do not continue to occur.

The formal report must be submitted to NMED on or before October 21, 2009. If you have questions please contact Hope Monzeglio of my staff at 505-428-2545.

Sincerely,



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

cc: D. Cobrain, NMED HWB
H. Monzeglio, NMED HWB
C. Chavez, NMEMNRD OCD
File: Reading GRCC 2009
GRCC-MISC

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Tuesday, September 15, 2009 9:19 AM
To: Monzeglio, Hope, NMENV; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Subject: RE: 9_5_09 API Overflow-C141 Initial Report
Attachments: C-141 Initial Report 090509.pdf

Hope,

The following is the Initial C-141 Report as required from the API Overflow that occurred on September 5, 2009. I will be following up this initial report with a final report addressing issues as described below.

Sincerely,
Beck

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Thursday, September 10, 2009 4:02 PM
To: Larsen, Thurman; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Subject: 9_5_09 API Overflow

Beck

This e-mail is to address the September 5, 2009 API separator overflow. The hazardous wastes released during the API separator overflow include K051, F038, and potentially D018. In addition to the C-141 form, Gallup must also submit a formal report. The formal report must describe the incident (how it occurred), describe all clean up actions, discuss where contaminated soils were stockpiled, explain what actions were completed to demonstrate that cleanup is complete, identify where all waste was or will be disposed, discuss how Gallup determined the volume of the release, and include what actions Gallup will be implementing to ensure overflows to the API do not continue to occur. NMED will follow up this e-mail with a written letter. Gallup must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link:

<http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf>

Please let me know if you have any questions.

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

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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen	
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258	
Facility Name Gallup Refinery	Facility Type Refinery	
Surface Owner	Mineral Owner.	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release 6.5 bbls (oil)	Volume Recovered 5.5 bbls (oil) (estimated)
Source of Release API UNIT	Date and Hour of Occurrence 9/05/2009; 1215 hrs / 1830 hrs	Date and Hour of Discovery 9/05/2009; 1215 hrs / 1830 hrs
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 9/06/2009 / 1750 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		

Describe Cause of Problem and Remedial Action Taken.*

On Saturday, September 5 at approximately 1143 hrs, Off-site personnel began bypassing filters and weir box in preparation for a possible rain event. At about 1200 to 1230 hrs, Saturday, September, 5, 2009, a heavy rain and thunderstorms passed over the facility. It began raining heavily for about 20 to 30 minutes. At 1220 hrs the new API began to overflow into the Baker Frac Tank. The API Operators began pumping from the new API to T-105/T-107 in order to remove as much water as possible from the API. The rain slacked off from a heavy to a moderate to light. At 1245 hrs the new API (East and West) Bays began to overflow due to the excessive rain. The API continued to overflow for about an hour. At 1800 hrs a second rain event began due to a secondary thunderstorm cell passing over the facility. Once again, the new API began to overflow a second time for an hour due to excess stormwater. The total overflow for both events was approximately 2 hours. A total rainfall for both events was approximately 1.6 inches.

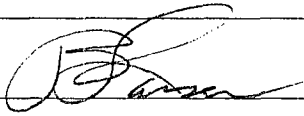
Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began immediately on September 5, 2009 during the rain event using a vacuum truck. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, all contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about September 10, 2009.

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

OIL CONSERVATION DIVISION

Signature:



Printed Name: Beck Larsen

Approved by District Supervisor:

Title: Environmental Engineer

Approval Date:

Expiration Date:

E-mail Address: Thurman.larsen@wnr.com

Conditions of Approval:

Attached ☐

Date: 7/21/2009

Phone: (505) 722-0258

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Rajen, Gaurav [Gaurav.Rajen@wnr.com]
Sent: Tuesday, August 25, 2009 1:58 PM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed
Subject: Final report - Tank 116 spill
Attachments: C-141-final signed.pdf; Soil samples 6-09.pdf; Soil samples 6-17.pdf; Samples - July 2009.pdf; C-141 final-report 8-25-2009.doc

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Dear Carl:

It is a pleasure to send you our final report for our Tank 116 spill of Ultra Low Sulfur Diesel which we have cleaned up. Two paper copies will go out in the mail today. Electronic copies are attached.

As you will note in the report, we excavated soil from within our berm area up to two feet. As there are active pipelines in the area, and ongoing work activity, we found it difficult to excavate any further near the pipelines, and had to cover our excavation with clean soil to prevent any hazard to workers in the area. This covering was done before our second set of laboratory results had arrived, for safety reasons. Our first set of laboratory results showed levels of DRO around 50,000 ppm. After excavation the DRO levels were of the order of 4000-6000 ppm (no BTEX was detected). As these levels were below 2 feet, we believe they did not come from the recent Tank 116 spill. We have conducted a small test at one of these locations of passive venting, using a perforated pipe to get air into the ground. The levels below the perforated pipe have fallen from 4700 ppm to 190 ppm. With your concurrence, we could now place more such perforated pipes in the area and we believe we will be able to reduce all the areas that were found to have DRO levels around 4000-6000 ppm to below concern. If we place many such perforated pipes we will also get concurrence (as needed) from the NMED's Air Quality Bureau.

We look forward to your response at your earliest convenience,

Sincerely,

Gaurav Rajen

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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address 1-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully. * Not applicable

Describe Cause of Problem and Remedial Action Taken.* ☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank/berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <i>Mark B. Turri</i>	OIL CONSERVATION DIVISION		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:	
E-mail Address: mark.turri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833		

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

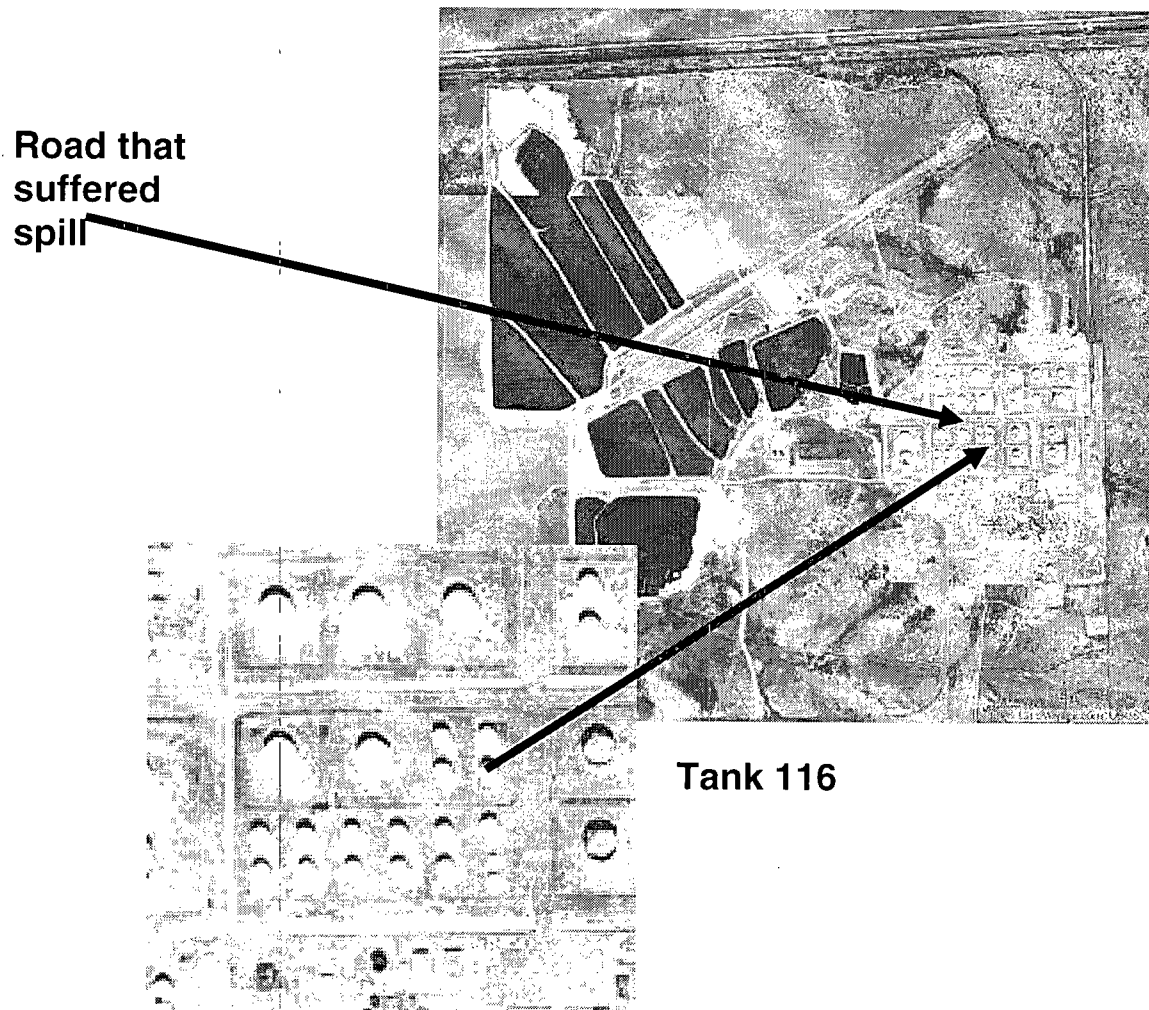
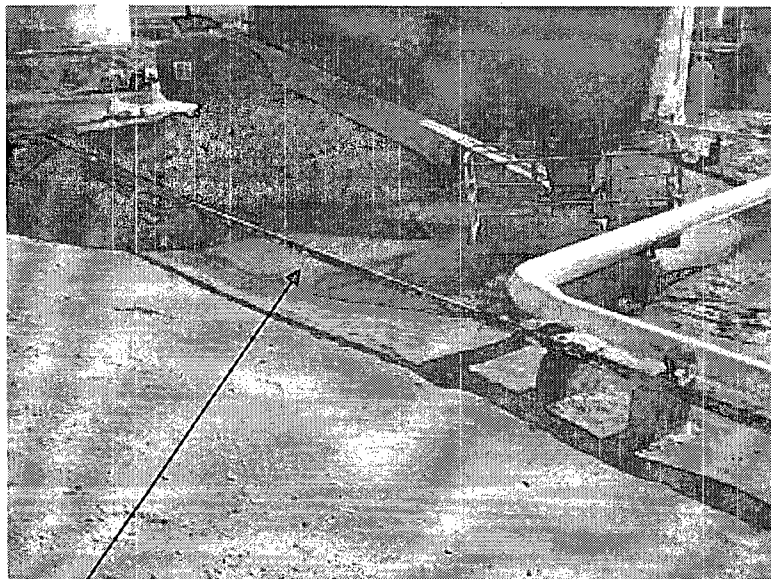


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

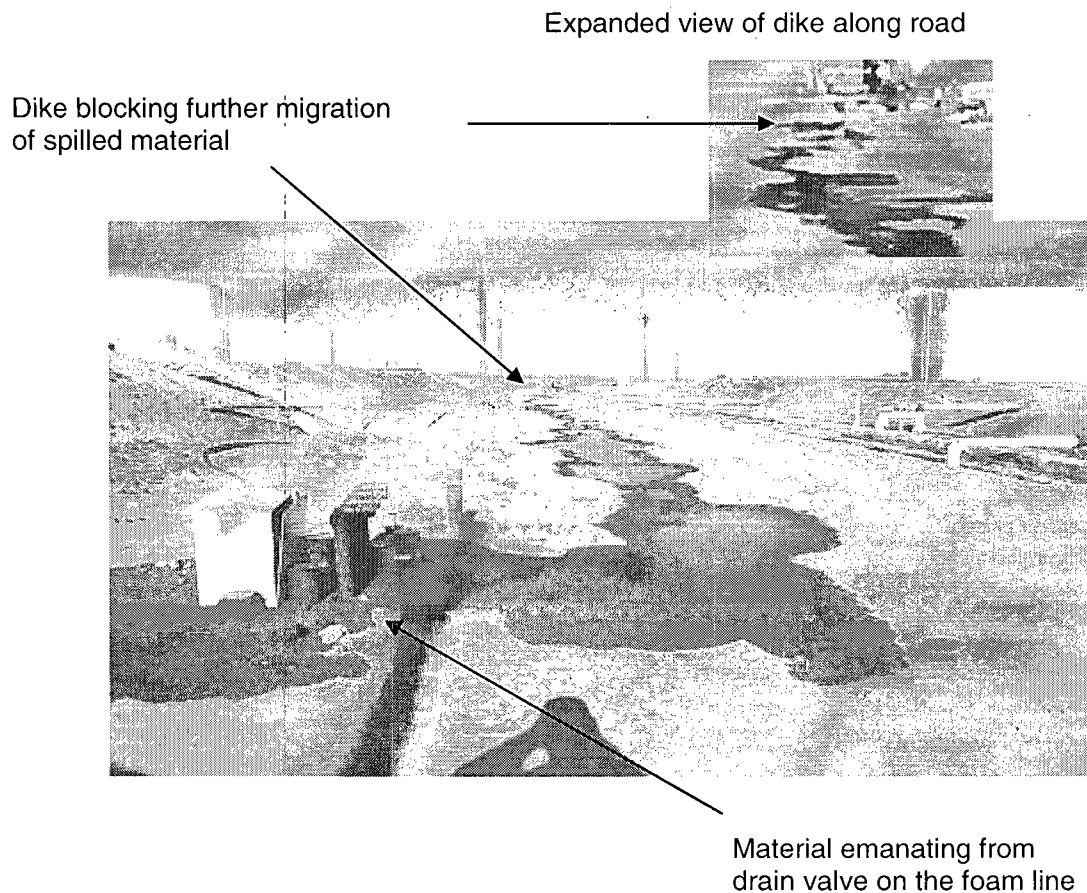


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.



Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.



Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank



Figure 6: Preliminary clean-up of road which had experienced run-off of product.

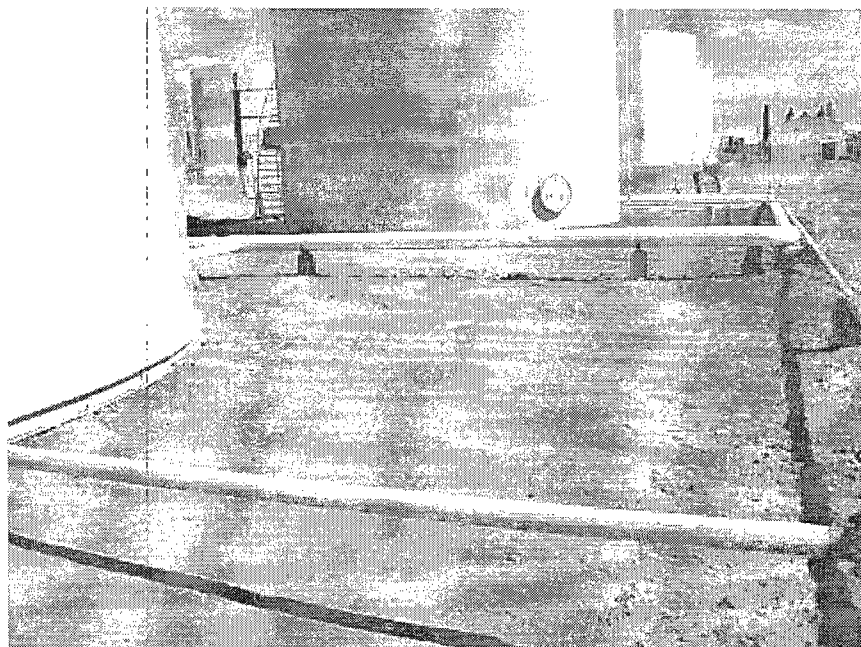


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

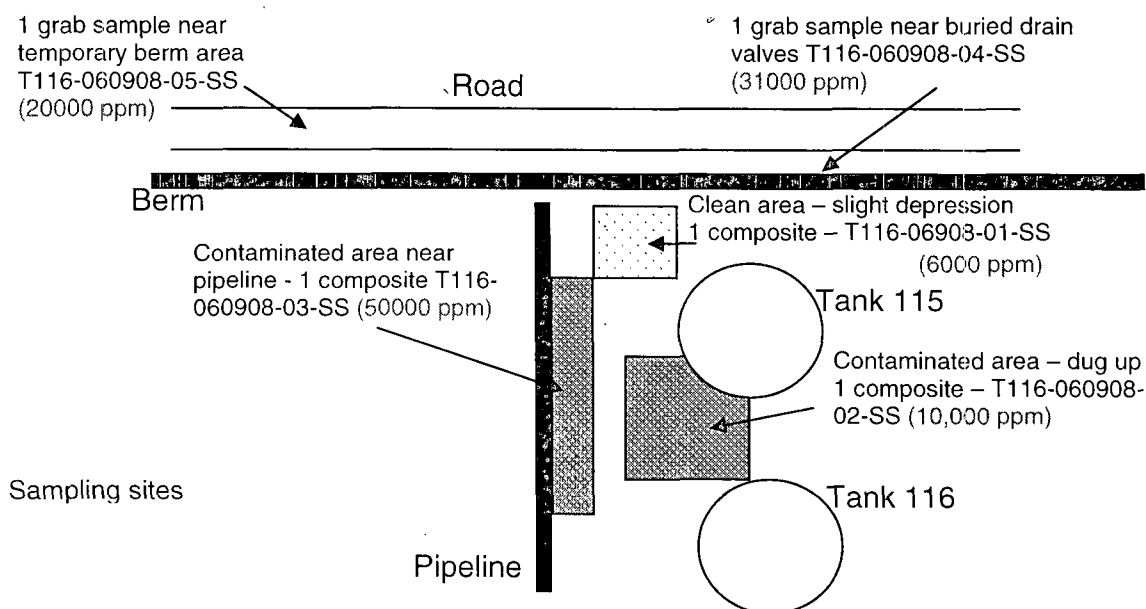


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

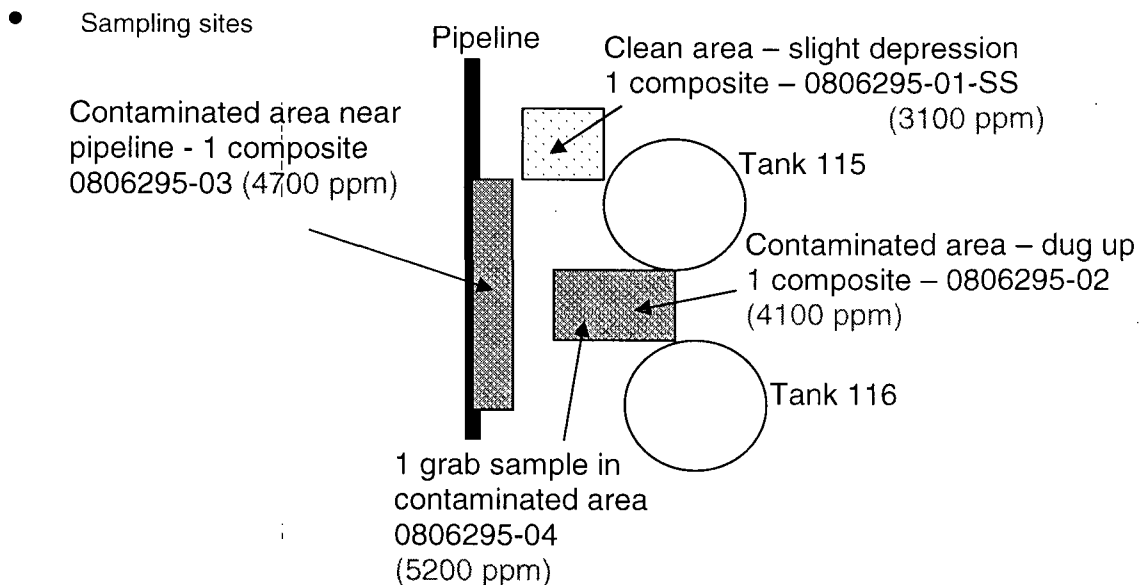


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

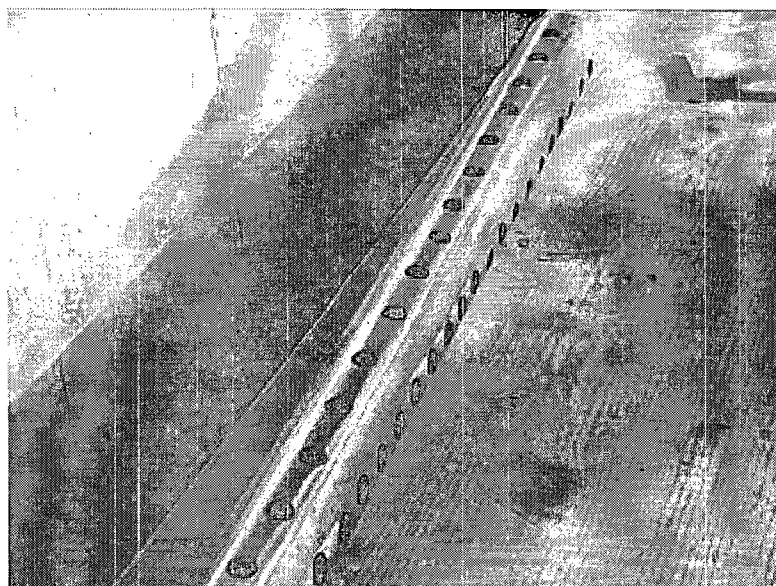


Figure 10: Perforated pipe that has been constructed

Perforated
pipe placed
into the
ground

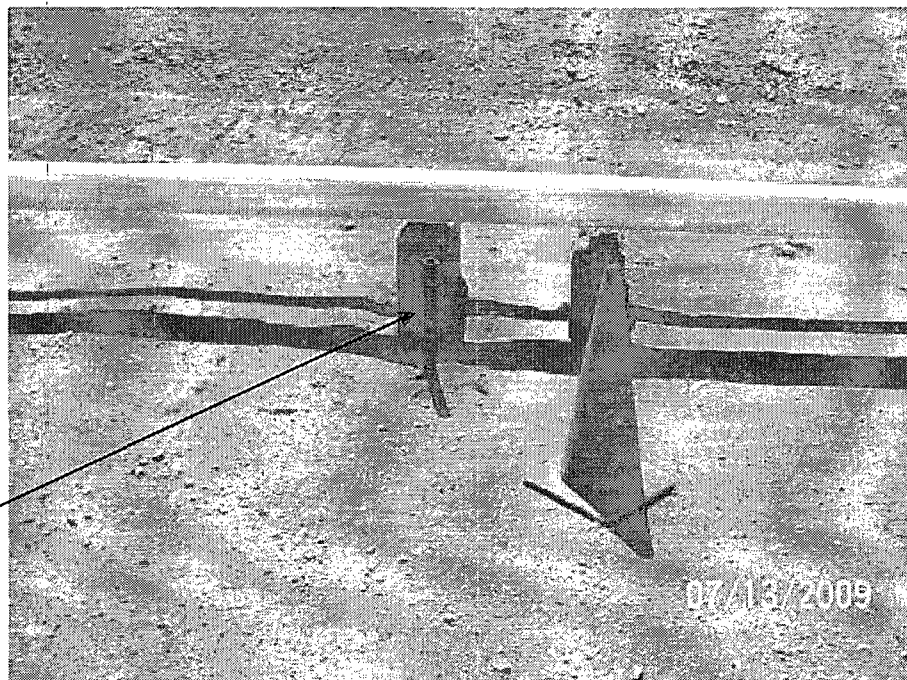


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

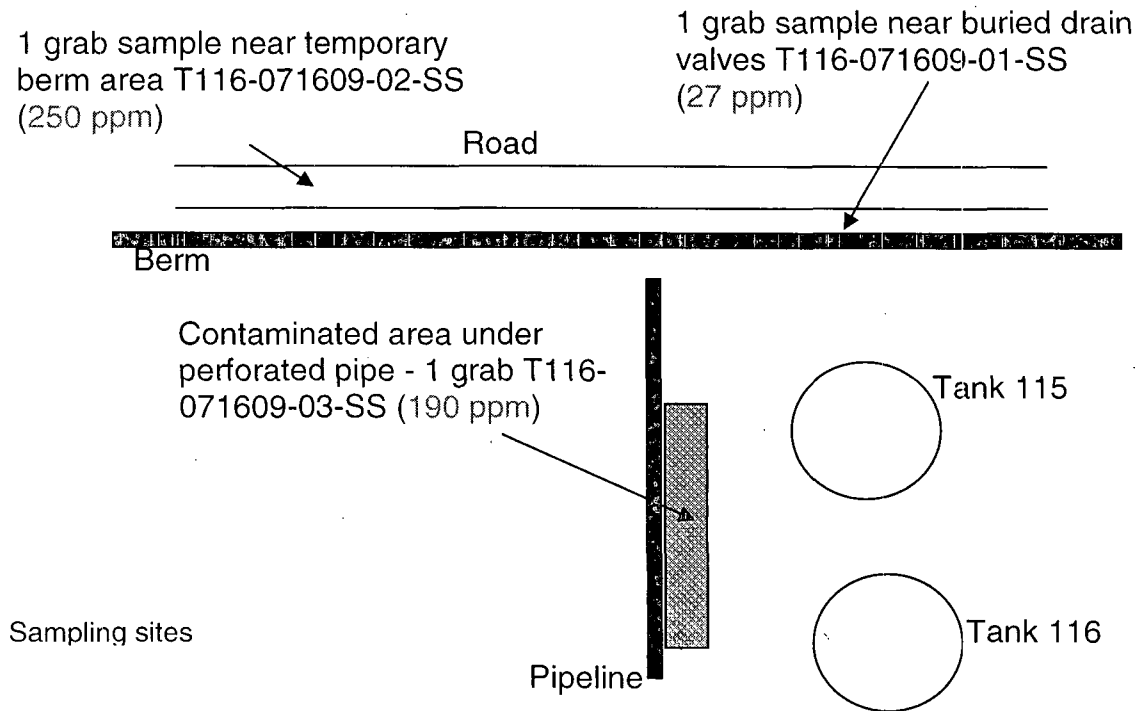


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

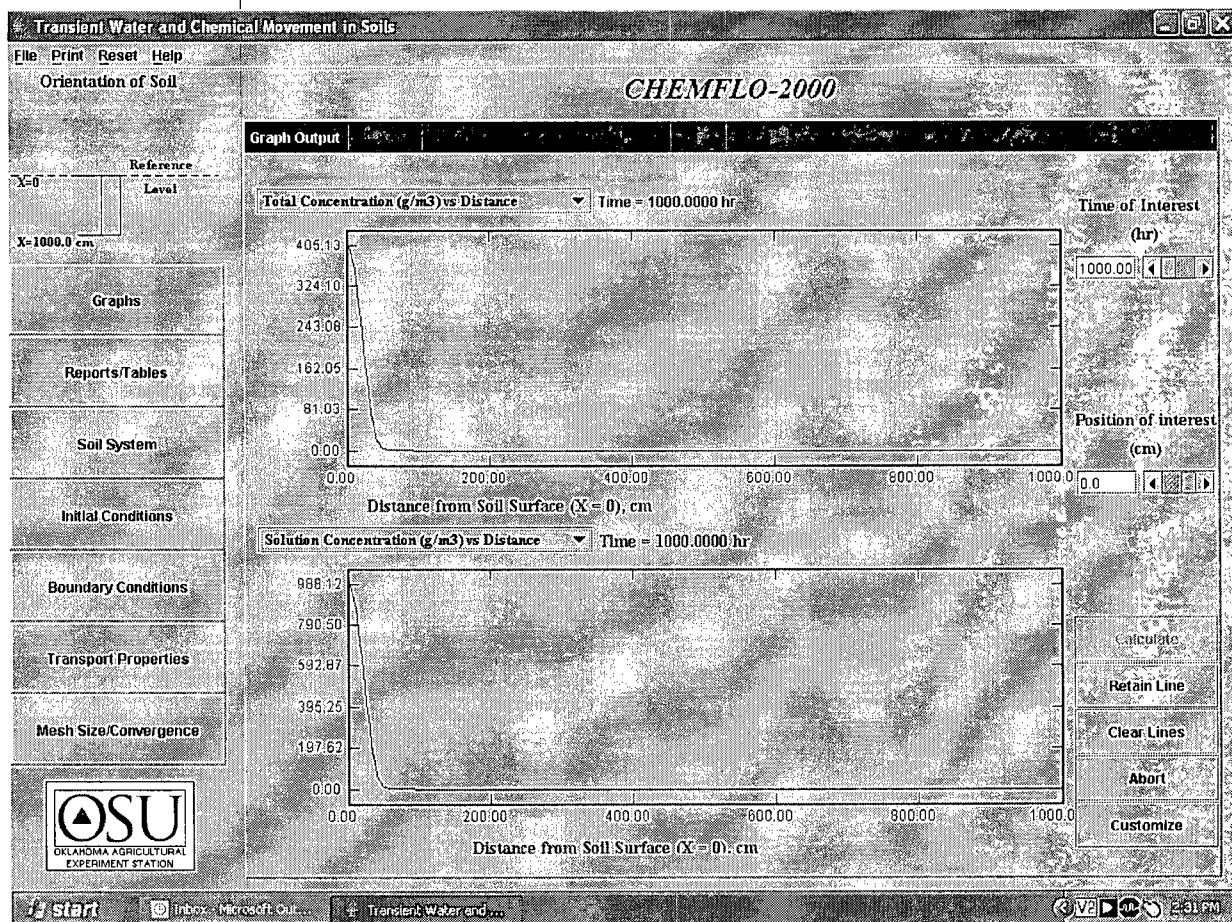


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil: Sandy Clay Loam

☒ Finite Length Soil Soil Length (cm): 500.0

☐ Semi-infinite Soil

Angle of Inclination, (degrees): 90

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m3)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		$K_s \text{ (cm/hr)} = 1.31$	$\theta_s \text{ (v/v)} = 0.39$		
		$\alpha \text{ (1/cm)} = 0.039$	$\theta_r \text{ (v/v)} = 0.1$		
		$n = 1.48$	$\alpha \text{ (1/cm)} = 0.039$		
			$n = 1.48$		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water(cm2/hr)	0.03528	
Dispersivity (cm)	0.12	
Uniform Partition Coefficient (m3/Mg soil)	0.095	
Uniform 1st-Order Degradation Const. in Liquid (1/hr)	0.47	
Uniform 1st-Order Degradation Const. on Solids (1/hr)	0.0004	
Uniform Zero-Order Production Constant (g/m3/hr)	0.0	

Figure A.3: Assumed chemical transport properties



COVER LETTER

Friday, June 13, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank-116-Spill Site

Order No.: 0806136

Dear Gaurav Rajen:

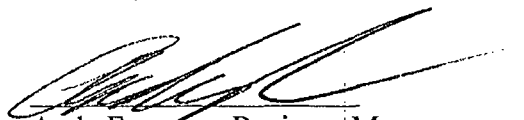
Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 6/10/2008 for the analyses presented in the following report.

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: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site
Lab Order: 0806136

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site

Lab Order: 0806136

Lab ID: 0806136-01

Collection Date: 6/9/2008 9:00:00 AM

Client Sample ID: T-116-060908-01-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:26 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:26 PM

Lab ID: 0806136-02

Collection Date: 6/9/2008 9:05:00 AM

Client Sample ID: T-116-060908-02-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Lab ID: 0806136-03

Collection Date: 6/9/2008 9:10:00 AM

Client Sample ID: T-116-060908-03-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Lab ID: 0806136-04

Collection Date: 6/9/2008 9:15:00 AM

Client Sample ID: T-116-060908-04-SS

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-05**Collection Date:** 6/9/2008 9:20:00 AM**Client Sample ID:** T-116-060908-05-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 PM

Analyst: SCC

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, Gallup

Project: Tank-116-Spill Site

Work Order: 0806136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16175		MBLK							
					Batch ID: 16175	Analysis Date: 6/12/2008 5:32:13 PM			
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16175		LCS							
					Batch ID: 16175	Analysis Date: 6/12/2008 6:06:34 PM			
Diesel Range Organics (DRO)	38.04	mg/Kg	10	76.1	64.6	116			
Sample ID: LCSD-16175		LCSD							
					Batch ID: 16175	Analysis Date: 6/12/2008 6:41:01 PM			
Diesel Range Organics (DRO)	35.48	mg/Kg	10	71.0	64.6	116	6.98	17.4	

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 GALLU

Date Received:

6/10/2008

Work Order Number 0806136

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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?

1°

<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, June 25, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank 116 Spill Site

Order No.: 0806295

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 6/19/2008 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup

Project: Tank 116 Spill Site

Lab Order: 0806295

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0806295-01A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-01

Client Sample ID: T-116-061708-01SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3100	200		mg/Kg	20	6/21/2008 10:51:57 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 10:51:57 AM
Surr: DNOP	0	61.7-135	S	%REC	20	6/21/2008 10:51:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: BFB	90.5	84-138		%REC	20	6/25/2008 4:21:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: 4-Bromofluorobenzene	87.7	81.4-117		%REC	20	6/25/2008 4:21:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-02

Client Sample ID: T-116-061708-02SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4100	100		mg/Kg	10	6/21/2008 11:26:21 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	6/21/2008 11:26:21 AM
Surr: DNOP	88.8	61.7-135		%REC	10	6/21/2008 11:26:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: BFB	93.5	84-138		%REC	20	6/25/2008 4:51:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: 4-Bromofluorobenzene	91.1	81.4-117		%REC	20	6/25/2008 4:51:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-03

Client Sample ID: T-116-061708-03SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4700	200		mg/Kg	20	6/21/2008 12:00:45 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 12:00:45 PM
Surr: DNOP	120	61.7-135		%REC	20	6/21/2008 12:00:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: BFB	92.4	84-138		%REC	20	6/25/2008 5:21:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: 4-Bromofluorobenzene	89.0	81.4-117		%REC	20	6/25/2008 5:21:35 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-04

Client Sample ID: T-116-061708-04SS
Collection Date: 6/17/2008 4:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5200	200		mg/Kg	20	6/21/2008 1:09:31 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 1:09:31 PM
Surr: ONOP	96.8	61.7-135		%REC	20	6/21/2008 1:09:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: BFB	102	84-138		%REC	20	6/25/2008 5:51:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: 4-Bromofluorobenzene	101	81.4-117		%REC	20	6/25/2008 5:51:32 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, Gallup
 Project: Tank 116 Spill Site

Work Order: 0806295

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16266		MBLK							
					Batch ID: 16266		Analysis Date: 6/20/2008 1:24:03 AM		
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16266		LCS							
					Batch ID: 16266		Analysis Date: 6/20/2008 1:58:25 AM		
Diesel Range Organics (DRO)	33.93	mg/Kg	10	67.9	64.6	116			
Sample ID: LCSD-16266		LCSD							
					Batch ID: 16266		Analysis Date: 6/20/2008 2:32:46 AM		
Diesel Range Organics (DRO)	33.99	mg/Kg	10	68.0	64.6	116	0.177	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-16271		MBLK							
					Batch ID: 16271		Analysis Date: 6/25/2008 2:48:53 AM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-16271		LCS							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:18:42 AM		
Gasoline Range Organics (GRO)	24.56	mg/Kg	5.0	87.4	69.5	120			
Sample ID: LCSD-16271		LCSD							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:48:48 AM		
Gasoline Range Organics (GRO)	25.01	mg/Kg	5.0	89.2	69.5	120	1.82	11.6	
Method: EPA Method 8021B: Volatiles									
Sample ID: MB-16271		MBLK							
					Batch ID: 16271		Analysis Date: 6/25/2008 2:48:53 AM		
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-16271		LCS							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:18:42 AM		
Benzene	0.2928	mg/Kg	0.050	105	78.8	132			
Toluene	2.030	mg/Kg	0.050	101	78.9	112			
Ethylbenzene	0.4135	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	2.465	mg/Kg	0.10	107	73	128			
Sample ID: LCSD-16271		LCSD							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:48:48 AM		
Benzene	0.2963	mg/Kg	0.050	106	78.8	132	1.19	27	
Toluene	2.037	mg/Kg	0.050	101	78.9	112	0.354	19	
Ethylbenzene	0.4119	mg/Kg	0.050	103	69.3	125	0.388	10	
Xylenes, Total	2.470	mg/Kg	0.10	107	73	128	0.190	13	

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 GALLU

Date Received:

6/19/2008

Work Order Number 0806295

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" 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?

16°

<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, July 31, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0227
FAX (505) 722-0210

RE: T116

Order No.: 0907508

Dear Gaurav Rajen:

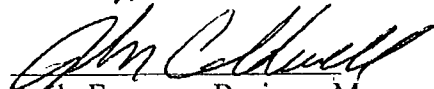
Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/28/2009 for the analyses presented in the following report.

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,

For 
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: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116**Lab Order:** 0907508**Lab ID:** 0907508-01
Client Sample ID: T1160716090155**Collection Date:** 7/16/2009 2:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02
Client Sample ID: T1160716090255**Collection Date:** 7/16/2009 2:15:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03
Client Sample ID: T1160716090355**Collection Date:** 7/16/2009 2:25:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup

Project: T116

Work Order: 0907508

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8015B: Diesel Range Organics

Sample ID: MB-19724

MBLK

Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

Sample ID: LCS-19724

LCS

Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) 35.49 mg/Kg 10 71.0 64.6 116

Sample ID: LCSD-19724

LCSD

Batch ID: 19724 Analysis Date: 7/29/2009

Diesel Range Organics (DRO) 41.25 mg/Kg 10 82.5 64.6 116 15.0 17.4

Method: EPA Method 8015B: Gasoline Range

Sample ID: MB-19740

MBLK

Batch ID: 19740 Analysis Date: 7/30/2009 8:17:32 PM

Gasoline Range Organics (GRO) ND mg/Kg 5.0

Sample ID: LCS-19740

LCS

Batch ID: 19740 Analysis Date: 7/30/2009 7:16:37 PM

Gasoline Range Organics (GRO) 30.59 mg/Kg 5.0 112 64.4 133

Sample ID: LCSD-19740

LCSD

Batch ID: 19740 Analysis Date: 7/30/2009 7:47:11 PM

Gasoline Range Organics (GRO) 30.13 mg/Kg 5.0 110 69.5 120 1.52 11.6

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 GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

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 ☒

Number of preserved
bottles checked for
pH:

<2 >12 unless noted
below.

Container/Temp Blank temperature?

8.6°"

<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

Address: GALLUP

Phone #: 505 722 3833

email or Fax#:

QA/QC Package:

☐ Standard

☐ Level 4 (Full Validation)

☐ Other:

☐ EDD (Type)

Project Manager:

G. RAZEN

Sampler:

On Ice

Sample Temperature

HEAL No.

0907508

Container Type and #

1x 802

1x 802

1x 802

Preservative Type

NONE

NONE

NONE

HEAL No.

-1

-2

-3

Sample Request ID

T116 0716090155

T116 0716090255

T116 0716090355

Date

7/16

2:00

7/16

2:15

7/16

2:25

Time

8:40

7/28

Relinquished by:

Jan

Relinquished by:

Jan

Received by:

Jan

Received by:

Jan

Remarks:

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Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Thursday, September 10, 2009 4:02 PM
To: Larsen, Thurman; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD
Subject: 9_5_09 API Overflow

Beck

This e-mail is to address the September 5, 2009 API separator overflow. The hazardous wastes released during the API separator overflow include K051, F038, and potentially D018. In addition to the C-141 form, Gallup must also submit a formal report. The formal report must describe the incident (how it occurred), describe all clean up actions, discuss where contaminated soils were stockpiled, explain what actions were completed to demonstrate that cleanup is complete, identify where all waste was or will be disposed, discuss how Gallup determined the volume of the release, and include what actions Gallup will be implementing to ensure overflows to the API do not continue to occur. NMED will follow up this e-mail with a written letter. Gallup must comply with Section II.F.2 (Twenty-four Hour Reporting) of the Post-Closure Care Permit which can be found using the following link:
<http://www.nmenv.state.nm.us/hwb/giant/GRC-C%20PCC%20PERMIT.pdf>

Please let me know if you have any questions.

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

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, September 10, 2009 3:27 PM
To: 'Larsen, Thurman'
Subject: RE: API Overflow on September 5, 2009

Thanks Thurman.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Thursday, September 10, 2009 2:37 PM
To: Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Monzeglio, Hope, NMENV
Subject: RE: API Overflow on September 5, 2009

Carl,
This was a minor spill (< 25 bbls) due to a little over 1 ½ inches rain. The amount will be in the neighborhood of about 5 to 6 bbls. I am working on the initial report and I will try to get it out sometime next week. I am still trying to gather extra data from others to compile my report.
Thanks,

From: Chavez, Carl J, EMNRD [mailto:CarlJ.Chavez@state.nm.us]
Sent: Thursday, September 10, 2009 2:27 PM
To: Larsen, Thurman; Powell, Brandon, EMNRD
Cc: Monzeglio, Hope, NMENV
Subject: RE: API Overflow on September 5, 2009

Thurman:

Was the release a "minor release" or less than 25 barrels under 19.15.29 NMAC? OCD needs a completed and signed C-141 Form for this release. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3490
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/oed/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Thursday, September 10, 2009 2:16 PM
To: Powell, Brandon, EMNRD

Cc: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Subject: API Overflow on September 5, 2009

Dear Mr. Powell,

As a follow-up of our conversation this past weekend, I am sending several pictures of before the event and the cleanup afterwards. All material has been cleanup and put in a roll-off box for proper disposal.

The first

two pictures (007 and 009) are the before the event, and the last two pictures are after final clean-up (1207 and 1217).

Sincerely,
Beck Larsen

This inbound email has been scanned by the MessageLabs Email Security System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the MessageLabs Email Security System.

This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Thursday, September 10, 2009 2:16 PM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Subject: API Overflow on September 5, 2009
Attachments: API OVERFLOW 090509 007.jpg; API OVERFLOW 090509 009.jpg; 100_1217.jpg; 100_1207.jpg

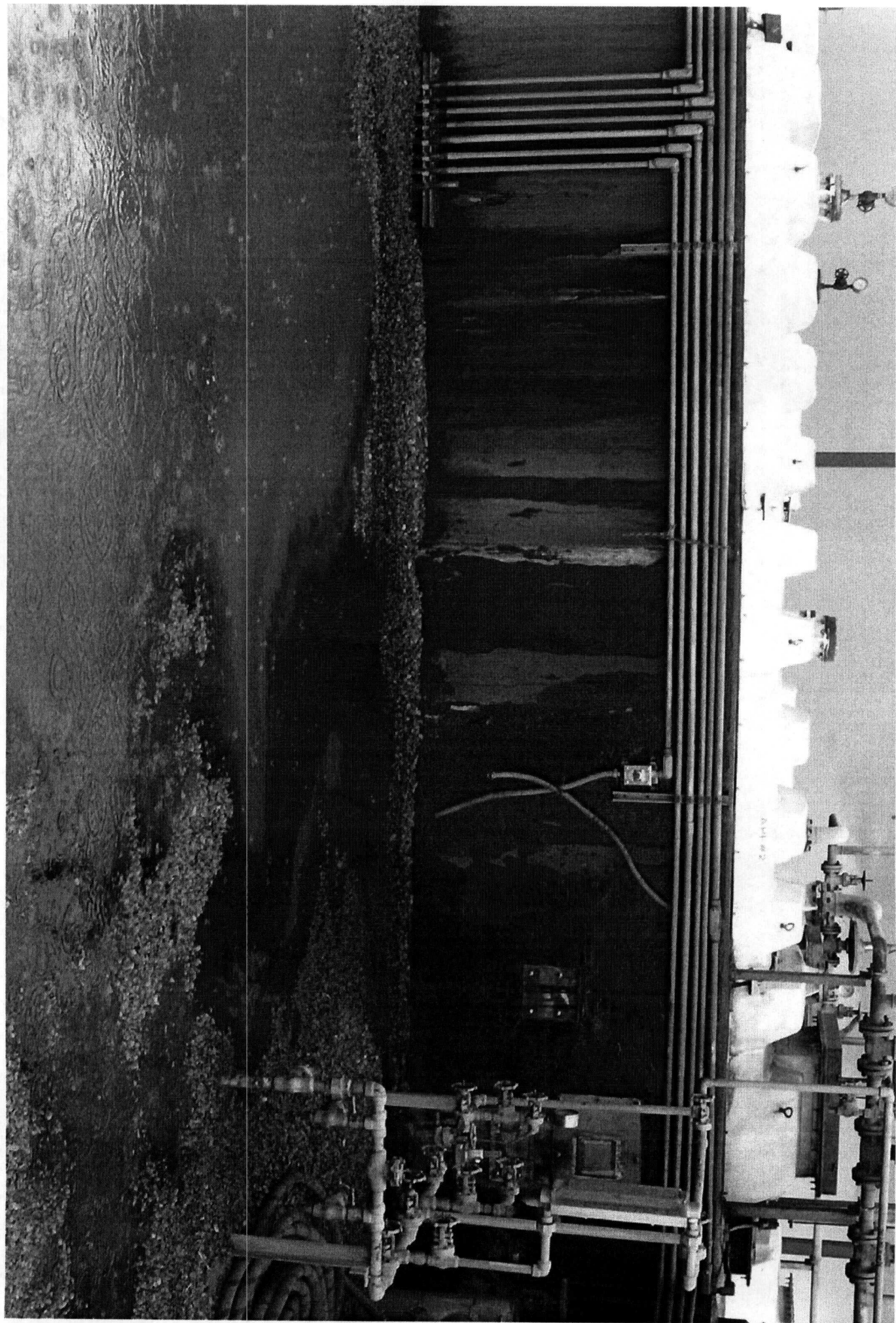
Dear Mr. Powell,

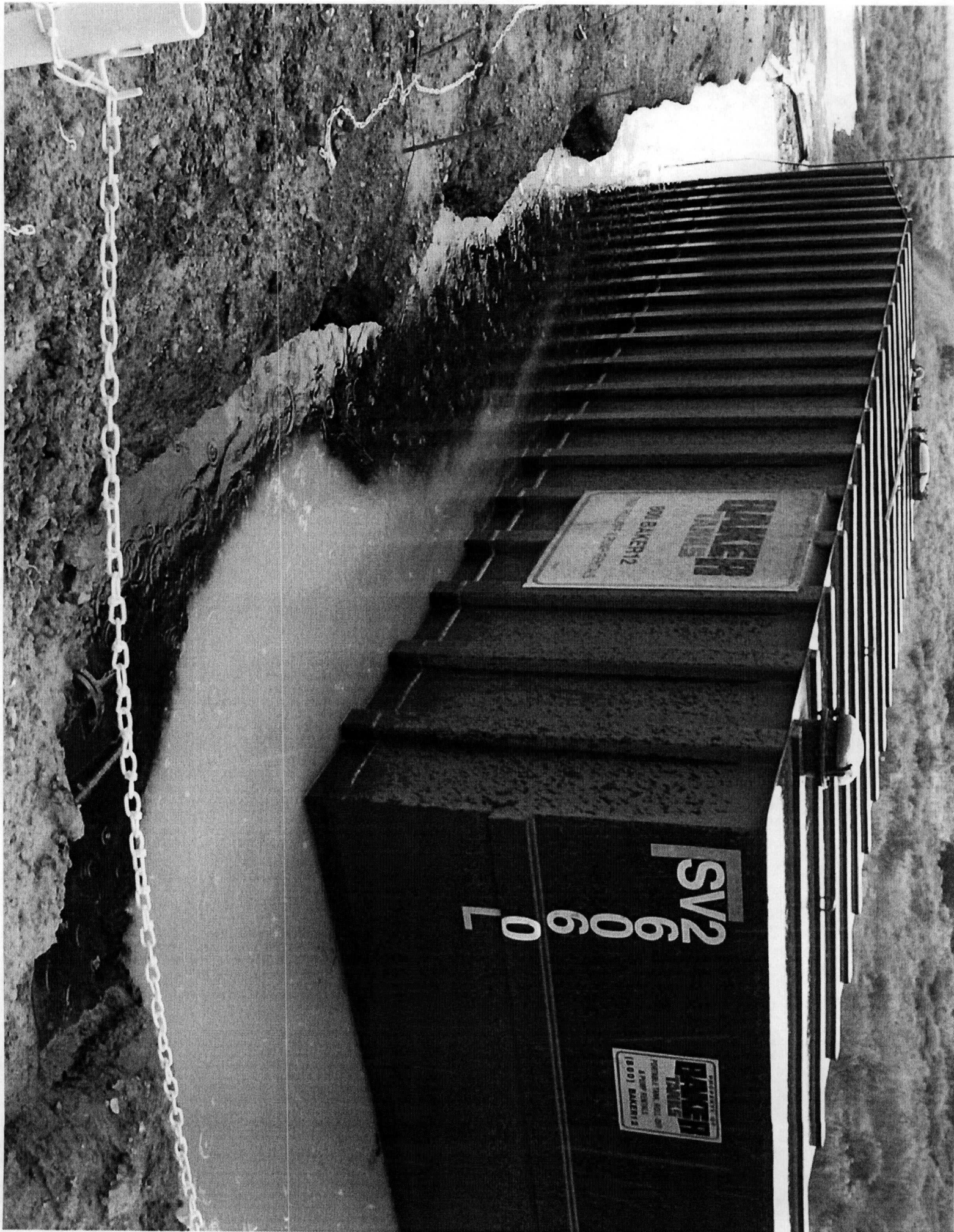
As a follow-up of our conversation this past weekend, I am sending several pictures of before the event and the cleanup afterwards. All material has been cleaned up and put in a roll-off box for proper disposal.

The first two pictures (007 and 009) are the before the event, and the last two pictures are after final clean-up (1207 and 1217).

Sincerely,
Beck Larsen

This inbound email has been scanned by the MessageLabs Email Security System.









Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Thursday, September 10, 2009 2:16 PM
To: Powell, Brandon, EMNRD
Cc: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Subject: API Overflow on September 5, 2009
Attachments: API OVERFLOW 090509 007.jpg; API OVERFLOW 090509 009.jpg; 100_1217.jpg; 100_1207.jpg

Dear Mr. Powell,

As a follow-up of our conversation this past weekend, I am sending several pictures of before the event and the cleanup afterwards. All material has been cleanup and put in a roll-off box for proper disposal.

The first

two pictures (007 and 009) are the before the event, and the last two pictures are after final clean-up (1207 and 1217).

Sincerely,
Beck Larsen

This inbound email has been scanned by the MessageLabs Email Security System.



GALLUP REFINERY

WNR
LISTED
NYSE

RECEIVED

2009 AUG 28 AM 10 50

August 25, 2009

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

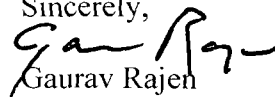
Dear Carl:

It is a pleasure to send you our final report for our Tank 116 spill of Ultra Low Sulfur Diesel which we have cleaned up.

As you will note in the report, we excavated soil from within our berm area up to two feet. As there are active pipelines in the area, and ongoing work activity, we found it difficult to excavate any further near the pipelines, and had to cover our excavation with clean soil to prevent any hazard to workers in the area. This covering was done before our second set of laboratory results had arrived, for safety reasons. Our first set of laboratory results showed levels of DRO around 50,000 ppm. After excavation the DRO levels were of the order of 4000-6000 ppm (no BTEX was detected). As these levels were below 2 feet, we believe they did not come from the recent Tank 116 spill. We have conducted a small test at one of these locations of passive venting, using a perforated pipe to get air into the ground. The levels below the perforated pipe have fallen from 4700 ppm to 190 ppm. With your concurrence, we could now place more such perforated pipes in the area and we believe we will be able to reduce all the areas that were found to have DRO levels around 4000-6000 ppm to below concern. If we place many such perforated pipes we will also get concurrence (as needed) from the NMED's Air Quality Bureau.

We look forward to your response at your earliest convenience,

Sincerely,


Gaurav Rajen

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22"

Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.*☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <i>Mark B. Turri</i>	OIL CONSERVATION DIVISION	
Printed Name: Mark B. Turri	Approved by District Supervisor:	
Title: Refinery Manager – Gallup	Approval Date:	Expiration Date:
E-mail Address: mark.turri@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833	

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

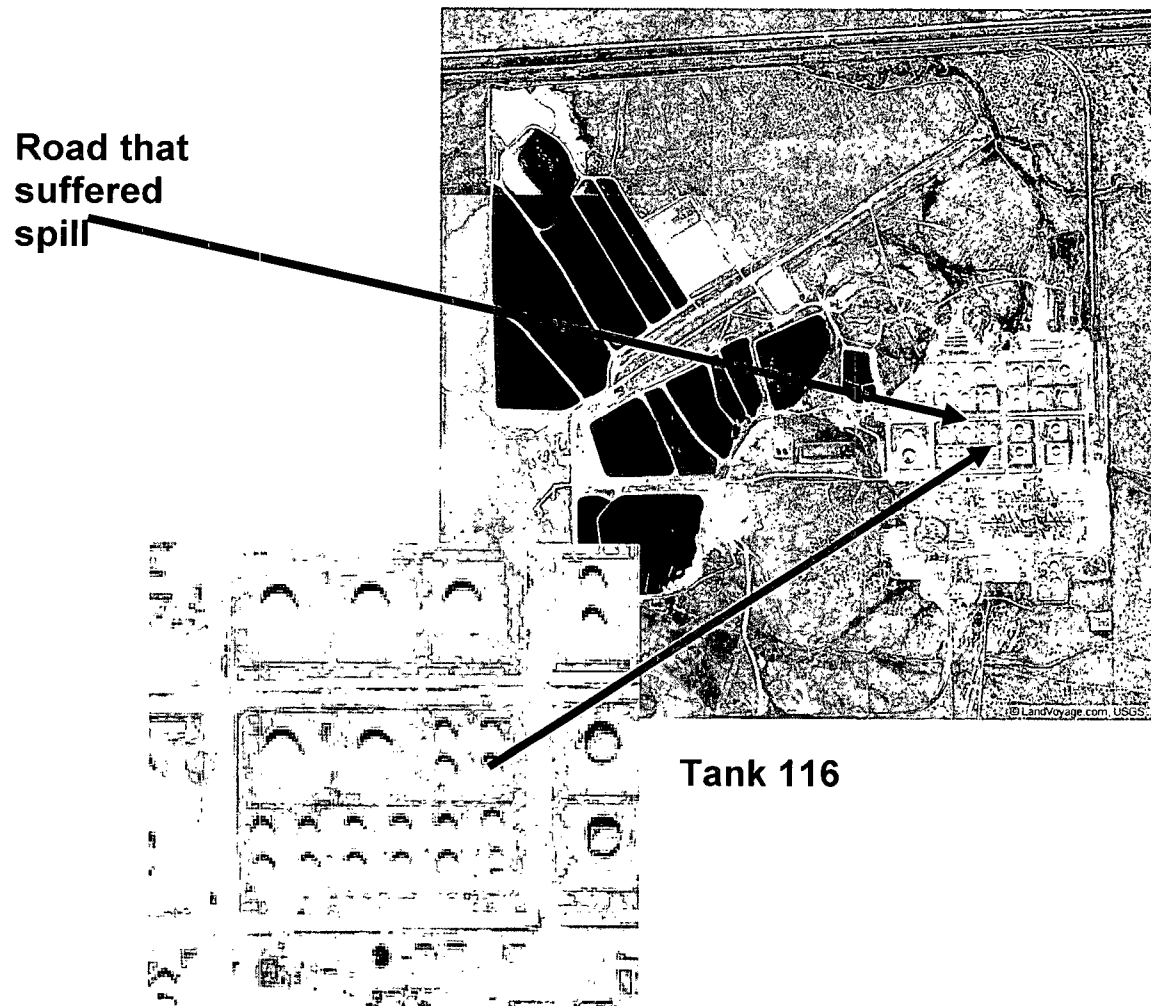
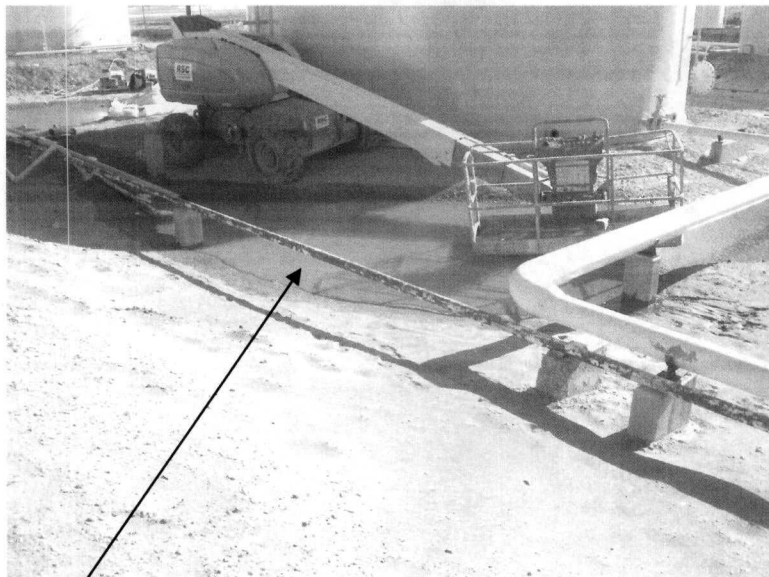


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

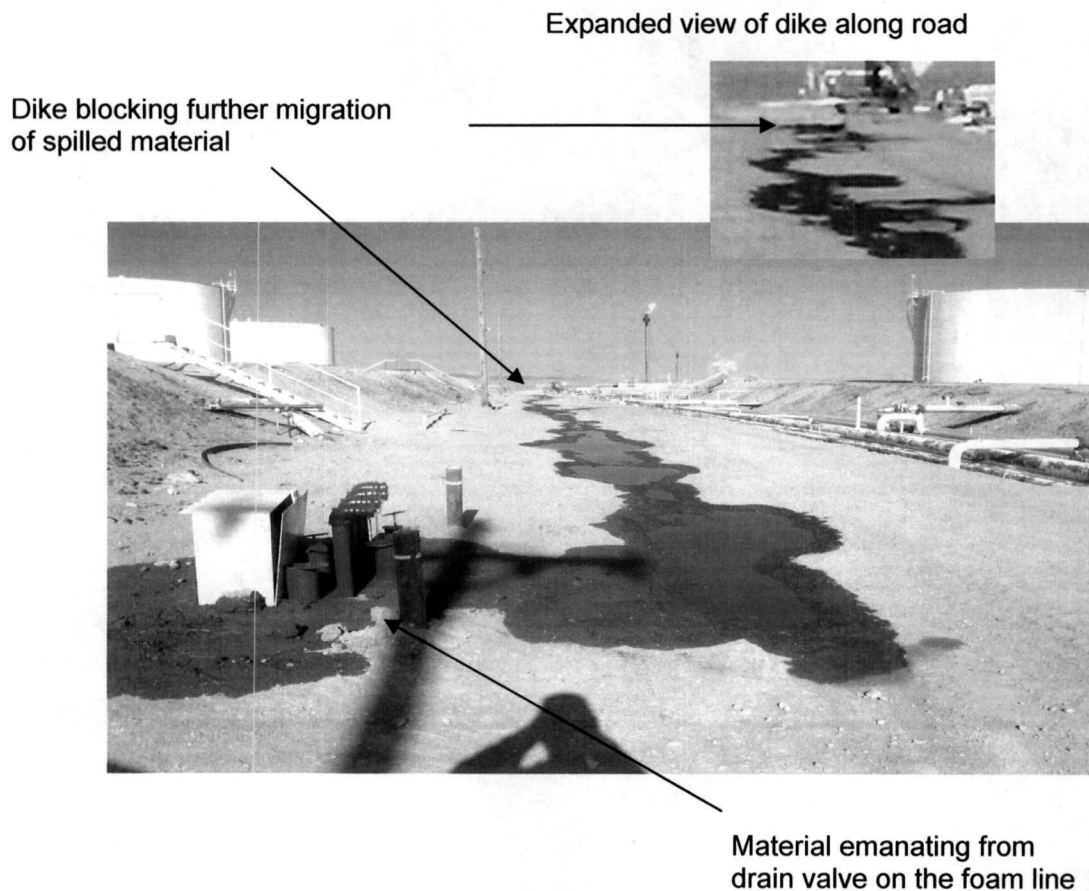


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.



Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.



Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank



Figure 6: Preliminary clean-up of road which had experienced run-off of product.

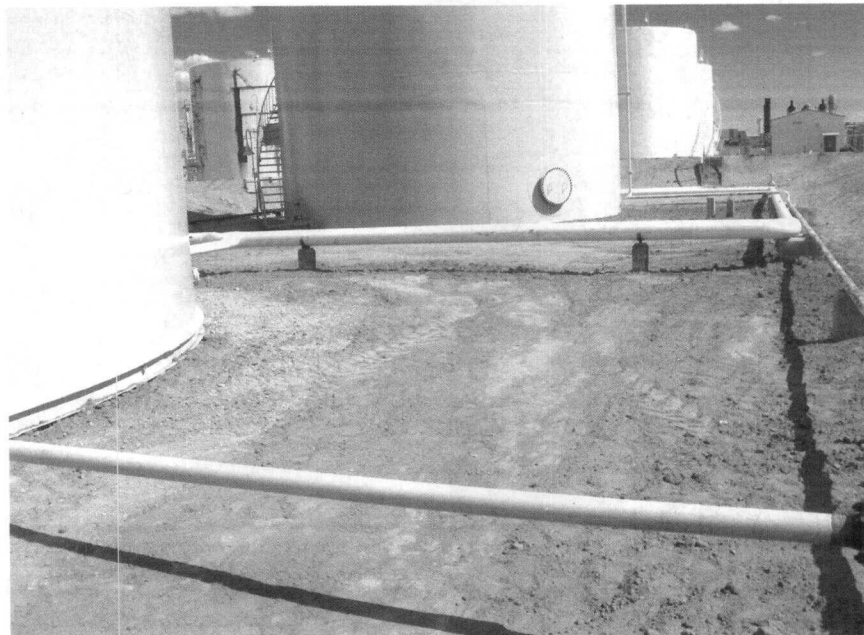


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

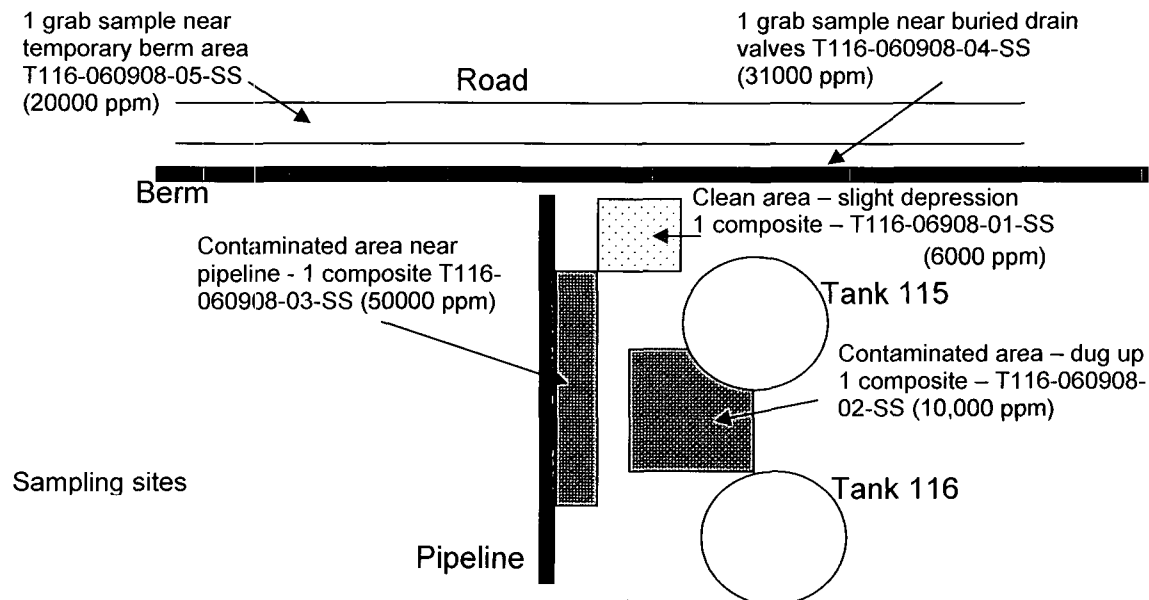


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

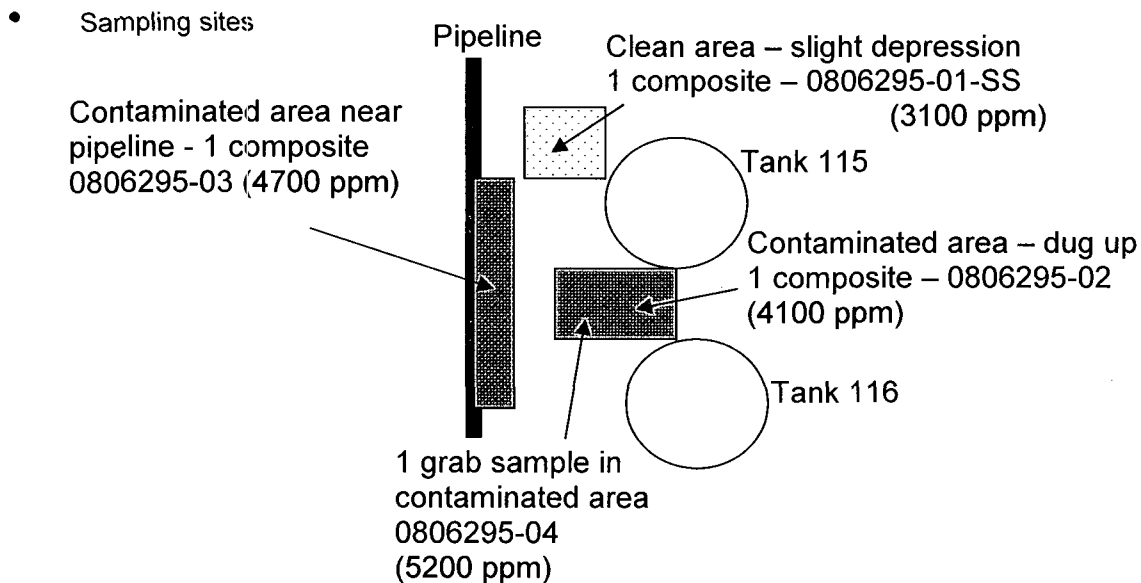


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

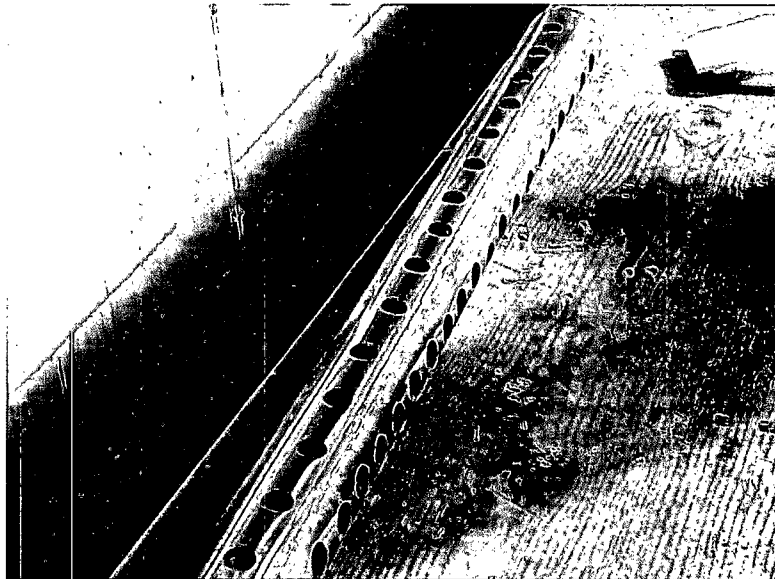


Figure 10: Perforated pipe that has been constructed

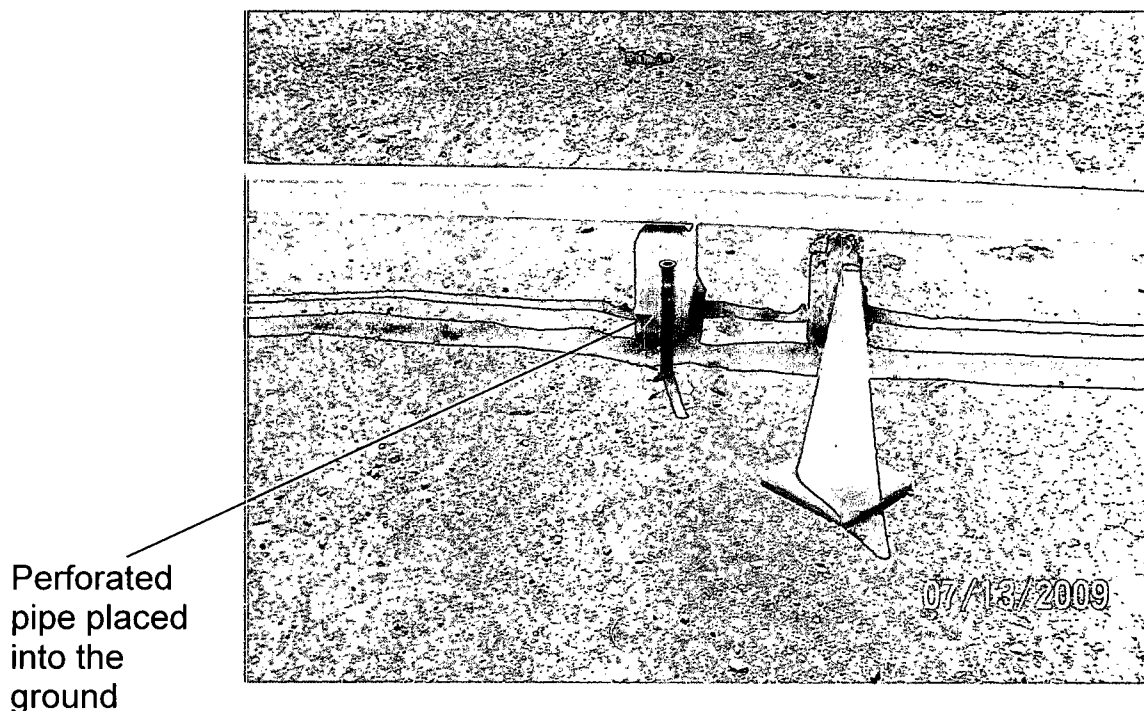


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

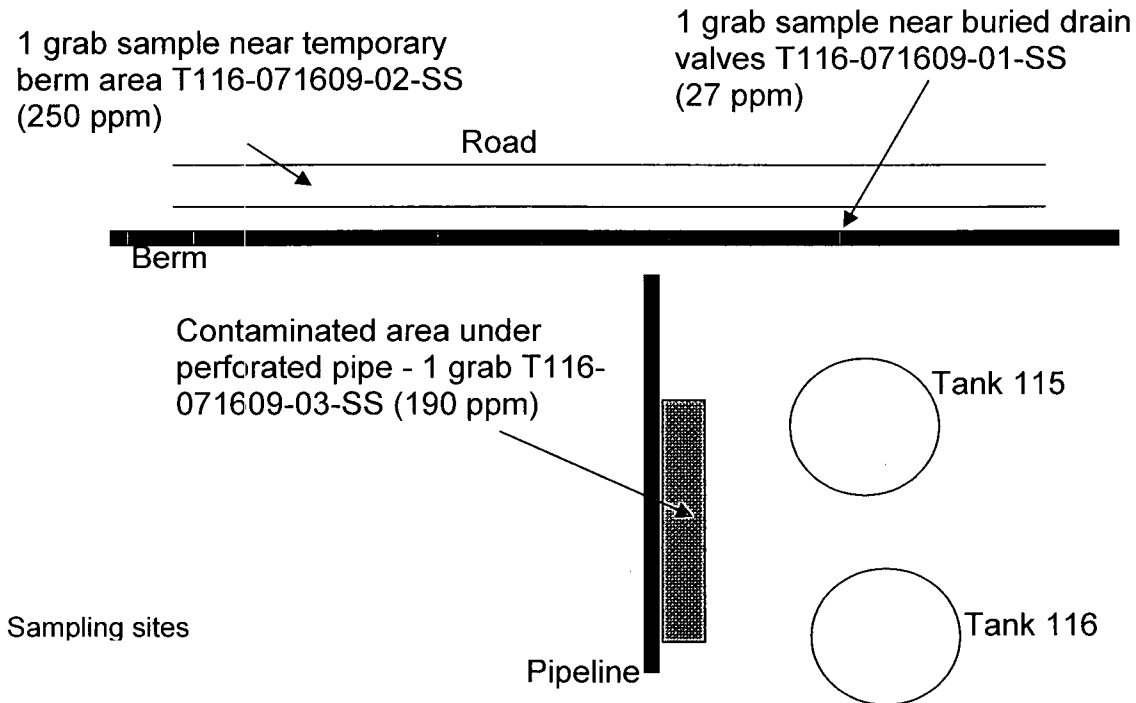


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

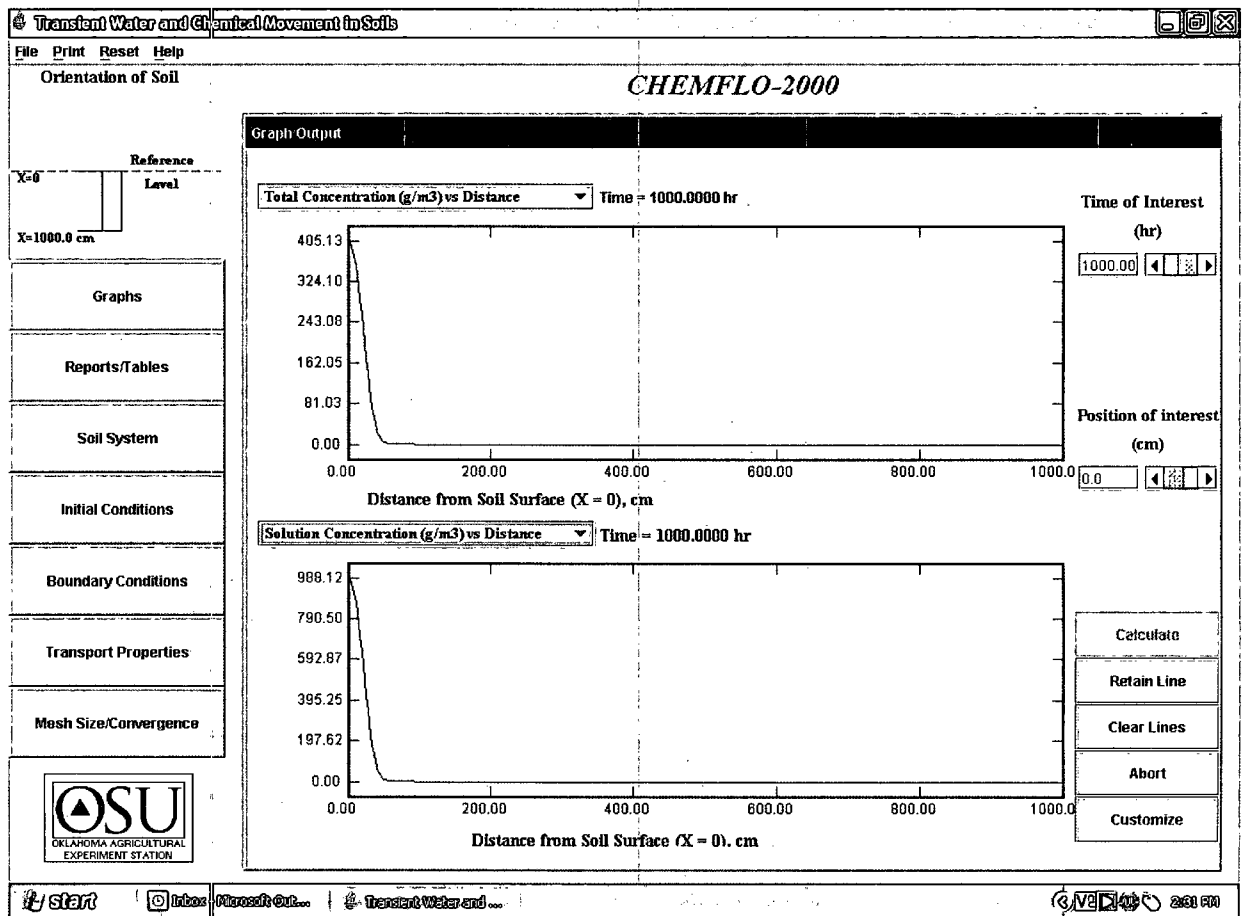


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil: Sandy Clay Loam ▼

☒ Finite Length Soil

Soil Length (cm): 500.0 ◀ ||| ▶

☐ Semi-infinite Soil

Angle of Inclination, (degrees):

90 ◀ ||| ▶

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m3)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		$n = 1.48$	α (1/cm) = 0.059		
			$n = 1.48$		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water (cm ² /hr)	0.03528 ◀ ▶
Dispersivity (cm)	0.12 ◀ ▶
Uniform Partition Coefficient (m ³ /Mg soil) ▼	0.095 ◀ ▶
Uniform 1st-Order Degradation Const. in Liquid (1/hr) ▼	0.47 ◀ ▶
Uniform 1st-Order Degradation Const. on Solids (1/hr) ▼	0.0004 ◀ ▶
Uniform Zero-Order Production Constant (g/m ³ /hr) ▼	0.0 ◀ ▶

Figure A.3: Assumed chemical transport properties



COVER LETTER

Friday, June 13, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833

FAX (505) 722-0210

RE: Tank-116-Spill Site

Order No.: 0806136

Dear Gaurav Rajen:

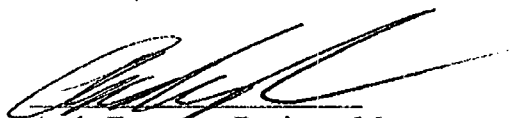
Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 6/10/2008 for the analyses presented in the following report.

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: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup**Project:** Tank-116-Spill Site**Lab Order:** 0806136**CASE NARRATIVE**

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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-01**Collection Date:** 6/9/2008 9:00:00 AM**Client Sample ID:** T-116-060908-01-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:26 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:26 PM

Lab ID: 0806136-02**Collection Date:** 6/9/2008 9:05:00 AM**Client Sample ID:** T-116-060908-02-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Lab ID: 0806136-03**Collection Date:** 6/9/2008 9:10:00 AM**Client Sample ID:** T-116-060908-03-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Lab ID: 0806136-04**Collection Date:** 6/9/2008 9:15:00 AM**Client Sample ID:** T-116-060908-04-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 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

Hall Environmental Analysis Laboratory, Inc.

Date: 13-Jun-08

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site**Lab Order:** 0806136**Lab ID:** 0806136-05**Collection Date:** 6/9/2008 9:20:00 AM**Client Sample ID:** T-116-060908-05-SS**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 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, Gallup
Project: Tank-116-Spill Site

Work Order: 0806136

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8016B: Diesel Range Organics

Sample ID: MB-16175

MBLK

Batch ID: 16175 Analysis Date: 6/12/2008 5:32:13 PM

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

Sample ID: LCS-16175

LCS

Batch ID: 16175 Analysis Date: 6/12/2008 6:06:34 PM

Diesel Range Organics (DRO) 38.04 mg/Kg 10 76.1 64.6 116

Sample ID: LCSD-16175

LCSD

Batch ID: 16175 Analysis Date: 6/12/2008 6:41:01 PM

Diesel Range Organics (DRO) 35.48 mg/Kg 10 71.0 64.6 116 6.98 17.4

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 GALLU

Date Received:

6/10/2008

Work Order Number 0806136

Received by: ARS

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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?	1°	<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, June 25, 2008

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Tank 116 Spill Site

Order No.: 0806295

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 6/19/2008 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup**Project:** Tank 116 Spill Site**Lab Order:** 0806295**CASE NARRATIVE**

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0806295-01A: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory, Inc.

Date: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-01

Client Sample ID: T-116-061708-01SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3100	200		mg/Kg	20	6/21/2008 10:51:57 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 10:51:57 AM
Surr: DNOP	0	61.7-135	S	%REC	20	6/21/2008 10:51:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: BFB	90.5	84-138		%REC	20	6/25/2008 4:21:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:21:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:21:31 AM
Surr: 4-Bromofluorobenzene	87.7	81.4-117		%REC	20	6/25/2008 4:21:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-02

Client Sample ID: T-116-061708-02SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4100	100		mg/Kg	10	6/21/2008 11:26:21 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	6/21/2008 11:26:21 AM
Surr: DNOP	88.8	61.7-135		%REC	10	6/21/2008 11:26:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: BFB	93.5	84-138		%REC	20	6/25/2008 4:51:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 4:51:31 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 4:51:31 AM
Surr: 4-Bromofluorobenzene	91.1	81.4-117		%REC	20	6/25/2008 4:51:31 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-03

Client Sample ID: T-116-061708-03SS
Collection Date: 6/17/2008 1:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4700	200		mg/Kg	20	6/21/2008 12:00:45 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 12:00:45 PM
Surr: DNOP	120	61.7-135		%REC	20	6/21/2008 12:00:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: BFB	92.4	84-138		%REC	20	6/25/2008 5:21:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:21:35 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:21:35 AM
Surr: 4-Bromofluorobenzene	89.0	81.4-117		%REC	20	6/25/2008 5:21:35 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: 25-Jun-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0806295
Project: Tank 116 Spill Site
Lab ID: 0806295-04

Client Sample ID: T-116-061708-04SS
Collection Date: 6/17/2008 4:30:00 PM
Date Received: 6/19/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5200	200		mg/Kg	20	6/21/2008 1:09:31 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/21/2008 1:09:31 PM
Surr: DNOP	96.8	61.7-135		%REC	20	6/21/2008 1:09:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: BFB	102	84-138		%REC	20	6/25/2008 5:51:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Toluene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Ethylbenzene	ND	1.0		mg/Kg	20	6/25/2008 5:51:32 AM
Xylenes, Total	ND	2.0		mg/Kg	20	6/25/2008 5:51:32 AM
Surr: 4-Bromofluorobenzene	101	81.4-117		%REC	20	6/25/2008 5:51:32 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, Gallup
 Project: Tank 116 Spill Site

Work Order: 0806295

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-16266		MBLK							
					Batch ID: 16266		Analysis Date: 6/20/2008 1:24:03 AM		
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-16266		LCS							
					Batch ID: 16266		Analysis Date: 6/20/2008 1:58:25 AM		
Diesel Range Organics (DRO)	33.93	mg/Kg	10	67.9	64.6	116			
Sample ID: LCSD-16266		LCSD							
					Batch ID: 16266		Analysis Date: 6/20/2008 2:32:46 AM		
Diesel Range Organics (DRO)	33.99	mg/Kg	10	68.0	64.6	116	0.177	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-16271		MBLK							
					Batch ID: 16271		Analysis Date: 6/25/2008 2:48:53 AM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-16271		LCS							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:18:42 AM		
Gasoline Range Organics (GRO)	24.56	mg/Kg	5.0	87.4	69.5	120			
Sample ID: LCSD-16271		LCSD							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:48:48 AM		
Gasoline Range Organics (GRO)	25.01	mg/Kg	5.0	89.2	69.5	120	1.82	11.6	
Method: EPA Method 8021B: Volatiles									
Sample ID: MB-16271		MBLK							
					Batch ID: 16271		Analysis Date: 6/25/2008 2:48:53 AM		
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-16271		LCS							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:18:42 AM		
Benzene	0.2928	mg/Kg	0.050	105	78.8	132			
Toluene	2.030	mg/Kg	0.050	101	78.9	112			
Ethylbenzene	0.4135	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	2.465	mg/Kg	0.10	107	73	128			
Sample ID: LCSD-16271		LCSD							
					Batch ID: 16271		Analysis Date: 6/25/2008 1:48:48 AM		
Benzene	0.2963	mg/Kg	0.050	106	78.8	132	1.19	27	
Toluene	2.037	mg/Kg	0.050	101	78.9	112	0.354	19	
Ethylbenzene	0.4119	mg/Kg	0.050	103	69.3	125	0.388	10	
Xylenes, Total	2.470	mg/Kg	0.10	107	73	128	0.190	13	

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 GALLU

Date Received:

6/19/2008

Work Order Number 0806295

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name FedEx

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input checked="" 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?	16°	<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

Client: WESTERN REFINING

Address: GALLUP

Phone #: 505 722 0227

email or Fax#:

QA/QC Package:

☒ Standard ☐ Level 4 (Full Validation)

☐ Other☐ EDD (Type)

Date _____

Time

Sample Request ID

15

1-20

1=30	T-116-061702-015
------	------------------

517

$$i=30$$

1-30 T-116-061708-025

66

$$1=30$$

1:30	T116001708-035
------	----------------

6717

$$4 \div 3$$

4:30 T 116-061708-04 S

Date:

Time:

Retinaquished by: 2

Date: _____

Time:

Relinquished by:

Received by:

Received by:

Demographics:

Received by	15/11/10
-------------	----------

Received by: _____

COVER LETTER

Friday, July 31, 2009

Gaurav Rajen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0227
FAX (505) 722-0210

RE: T116

Order No.: 0907508

Dear Gaurav Rajen:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 7/28/2009 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,



For 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: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116**Lab Order:** 0907508**Lab ID:** 0907508-01**Collection Date:** 7/16/2009 2:00:00 PM**Client Sample ID:** T1160716090155**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02**Collection Date:** 7/16/2009 2:15:00 PM**Client Sample ID:** T1160716090255**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03**Collection Date:** 7/16/2009 2:25:00 PM**Client Sample ID:** T1160716090355**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: T116

Work Order: 0907508

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-19724		MBLK							
					Batch ID: 19724		Analysis Date:		7/29/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19724		LCS							
					Batch ID: 19724		Analysis Date:		7/29/2009
Diesel Range Organics (DRO)	35.49	mg/Kg	10	71.0	64.6	116			
Sample ID: LCSD-19724		LCSD							
					Batch ID: 19724		Analysis Date:		7/29/2009
Diesel Range Organics (DRO)	41.25	mg/Kg	10	82.5	64.6	116	15.0	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-19740		MBLK							
					Batch ID: 19740		Analysis Date:		7/30/2009 8:17:32 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-19740		LCS							
					Batch ID: 19740		Analysis Date:		7/30/2009 7:16:37 PM
Gasoline Range Organics (GRO)	30.59	mg/Kg	5.0	112	64.4	133			
Sample ID: LCSD-19740		LCSD							
					Batch ID: 19740		Analysis Date:		7/30/2009 7:47:11 PM
Gasoline Range Organics (GRO)	30.13	mg/Kg	5.0	110	69.5	120	1.52	11.6	

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 GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

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?

8.6°"

<6° C Acceptable

If given sufficient time to cool.

Number of preserved
bottles checked for
pH:

<2 >12 unless noted
below.

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

Chain-of-Custody Record		Turn-Around Time:
Client:	WESTERN	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Address:	REFINING GALLUP	Project Name: T116

Turn-Around Time:

Client:

WESTERN

Ref 226

Address: GALLUP

Phone #: 505 722 3833

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)☐ Other:☐ EDD (Type)

Date: _____

Time

Sample Request ID

Container

Preservative Type

HEAL No.

0907508

1

17

M

Date: _____ Time: _____

Relinquished by:

Relinquished by:	Sam Rg-
Relinquished by:	

Date: _____

Time:

Befriedigt durch

~~Received by:~~

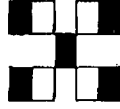
~~Received~~

Remarks:

Received by:	7/28/00
Received by:	7/28/00

Received by _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY



www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

[illegible]

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

RECEIVED

2009 AUG 28 AM 10 50

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22"

Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 45 barrels (1890 gallons) final estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* ☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area originally estimated as approximately 500 square feet with some vertical penetration of the ULSD. Through excavation and sampling, this area has a final estimate of approximately 1000 square feet, and of 2 feet depth. An affected area of approximately 500 feet in length and average 5 feet wide (ranging between 2-10 feet depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface penetrated to a depth of 3 inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils were excavated, confirmatory environmental samples were collected and analyzed, and all contaminated materials disposed off in accordance with applicable regulations at a permitted landfill. Details are provided in the attached report.

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

Signature: <i>Mark B. Turri</i>	OIL CONSERVATION DIVISION		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:	
E-mail Address: mark.turri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-20-2009	Phone: 505-722-3833		

- Attach Additional Sheets If Necessary

C-141 Final Report - Tank 116 Spill

1.0 Description of Site and Incident

Tank 116 is located within the northern tank farm area of the Gallup Refinery. Figure 1 depicts an aerial view of the refinery – and Tank 116 is described in a detailed image extracted from this picture.

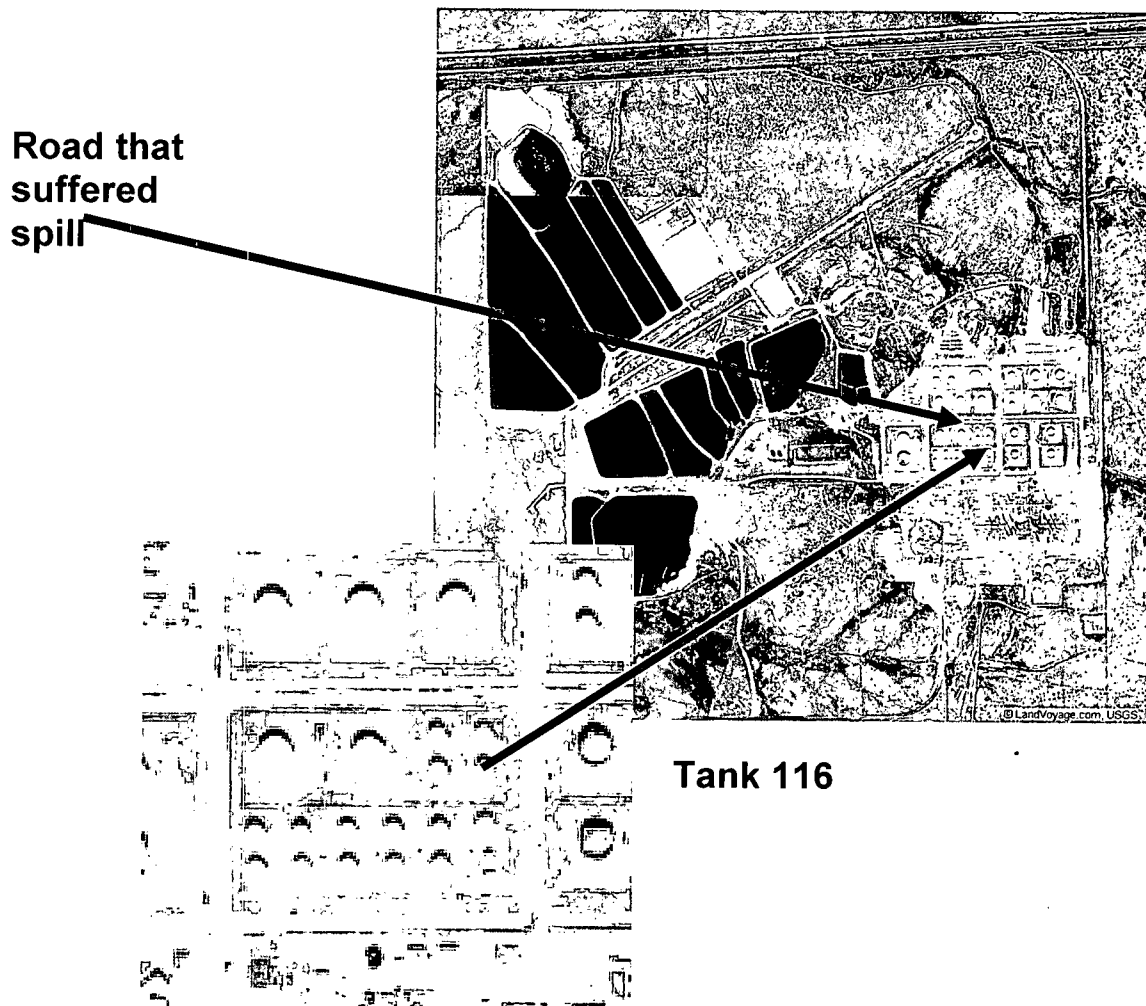
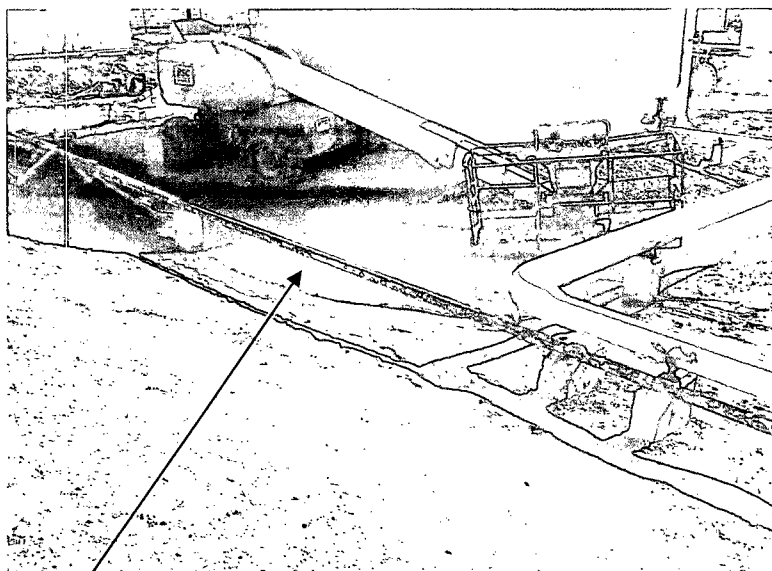


Figure 1: Location of Tank 116 within the Gallup Refinery

1.1 Nature of Spill Incident

At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled Ultra Low Sulfur Diesel (ULSD) onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. This foam line is designed to provide foam into the tank to suppress fires in an emergency and has to be kept open. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration. Figure 2 depicts the spill around the tank within the area of the berm. The photograph presented in Figure 3 depicts the spill emanating from the buried drain valve that migrated along the service road.



**Area around Tank 116, Tank 115,
and within the berm affected by
the ULSD spill**

Figure 2: Photograph depicting contaminated areas within the berm adjacent to Tank 116 – Tank 116 is off the picture; much of the product flowed and collected next to Tank 115 which can be seen. At this time, maintenance work was ongoing on Tank 115 which is why heavy equipment is seen in the area.

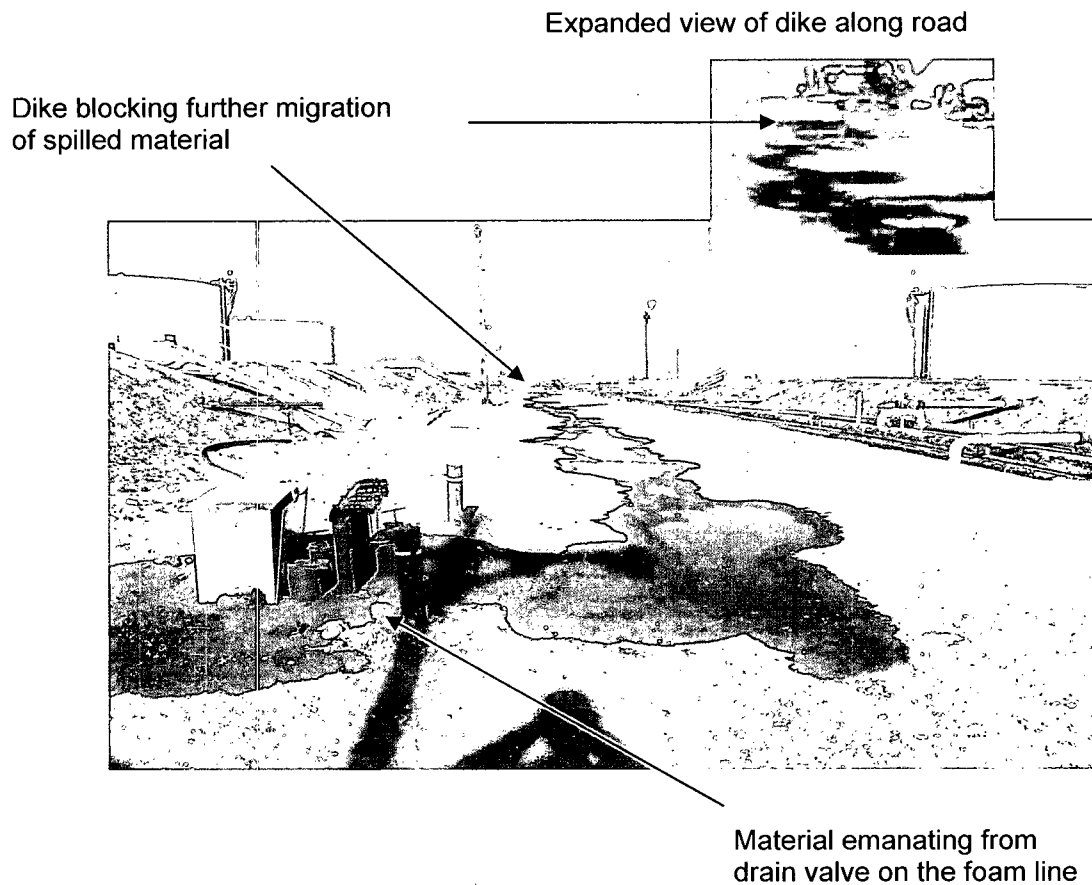


Figure 3: Photograph depicting spilled material along a service road adjacent to Tank 116.

2.0 Remediation Actions

Almost immediately following the spill, a vacuum truck was used to pick up free product (as much as possible), and absorbent material was placed on affected areas to soak up product remaining on the surface. Later, contaminated soil was excavated and stored on plastic in a staging area for later disposal in a permitted landfill. Figures 4-7 depict photographs of various stages of the excavation and subsequent clean-up of the area.

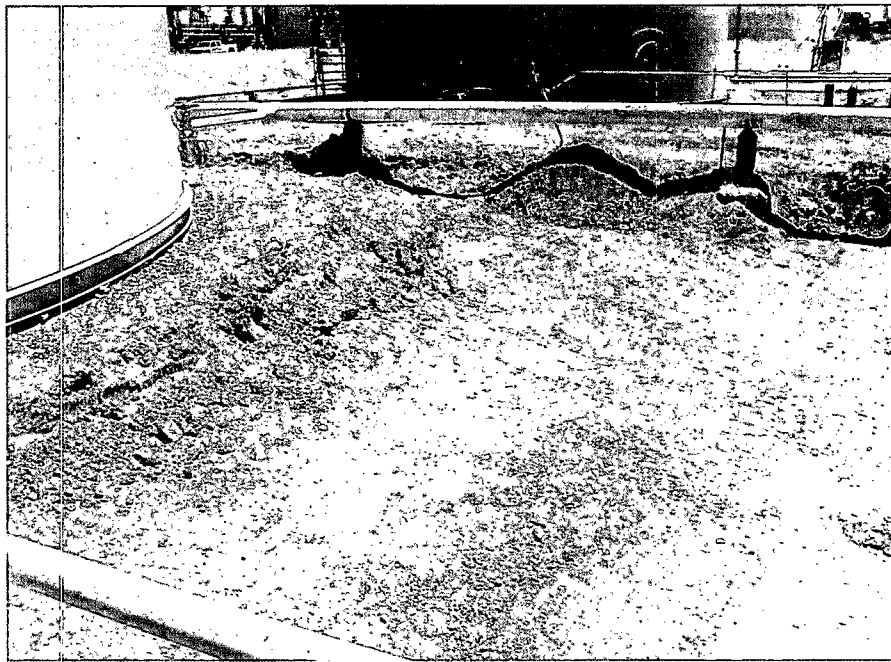


Figure 4: Excavation of contaminated soil in the area described in Figure 2. Note active pipeline towards the rear.

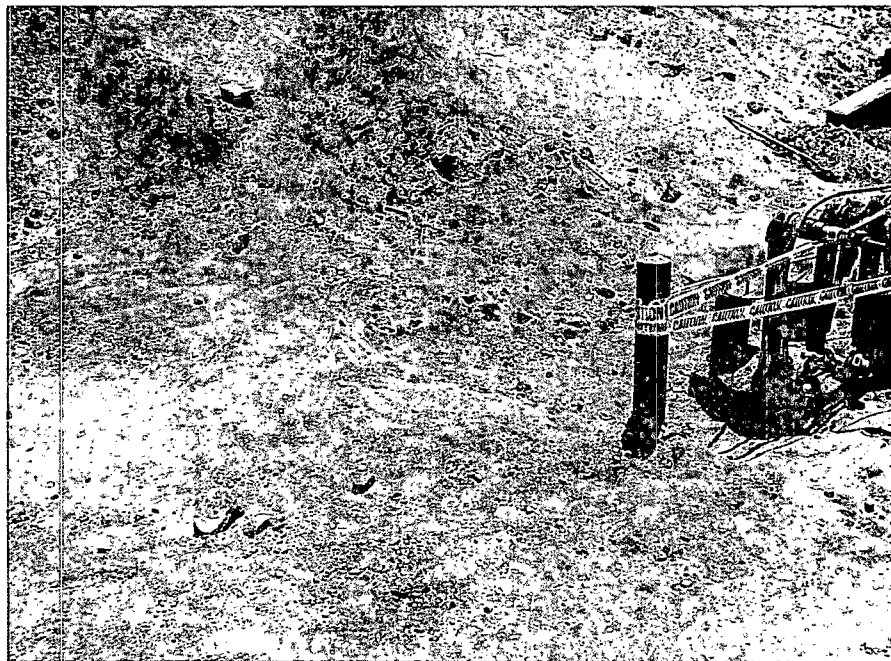


Figure 5: Preliminary excavation of contaminated soils near the drain pipes where product flowed out from the open foam line within the tank

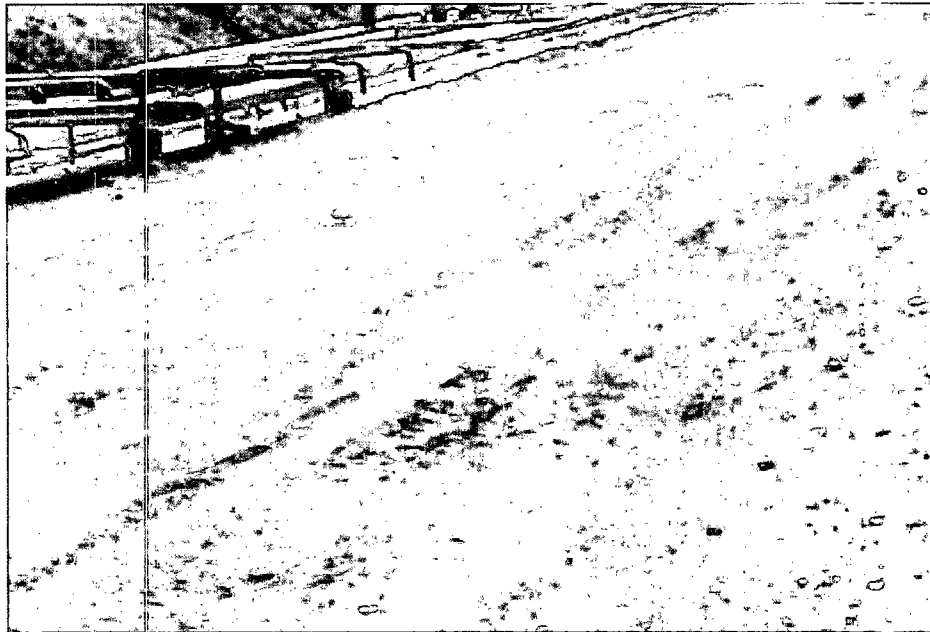


Figure 6: Preliminary clean-up of road which had experienced run-off of product.

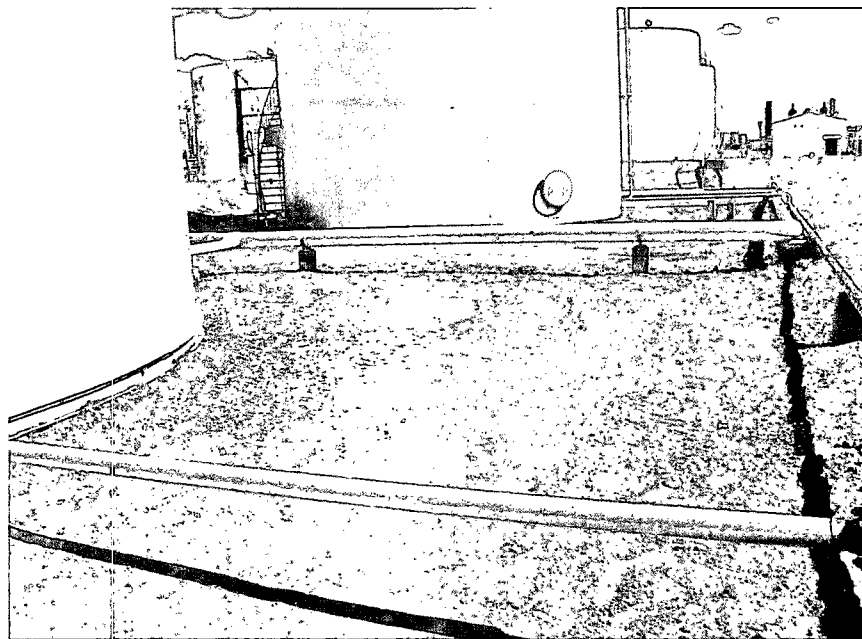


Figure 7: Final clean-up of affected area near Tank 116

After all free product had been removed and contaminated soil (from visual observation) excavated, we prepared a sampling plan and collected soil samples that were sent to Hall Environmental Analytical Laboratories for testing. The sampling locations and preliminary results for Diesel Range Organics (DRO) in red font are described in Figure 8. Appendix A presents details of the laboratory results. The composite samples were biased to locations where we could observe soil staining.

Sampling Plan – Tank 116

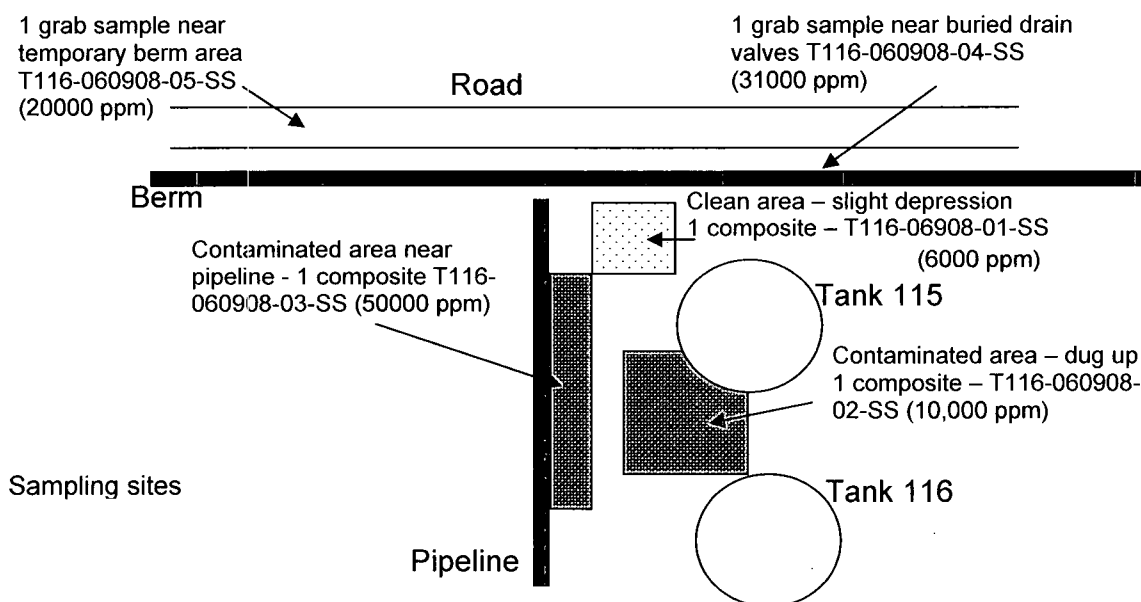


Figure 8: Preliminary sampling locations and results for DRO

These data showed levels of DRO from 6000 ppm to 50,000 ppm. The samples were also analyzed for Gasoline Range Organics (GRO) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using EPA-approved and OCD-recommended methods. GRO and BTEX were at non-detect levels. Based on these data, subsequent excavations were undertaken and the sites were sampled again. Figure 9 presents results from this second set of samples.

These tanks are an active work site. While waiting to receive the second set of laboratory results we were compelled to cover the excavated areas for safety reasons as depressions and excavations represent a safety hazard for personnel who continuously work around these tanks.

Sampling Plan – Tank 116

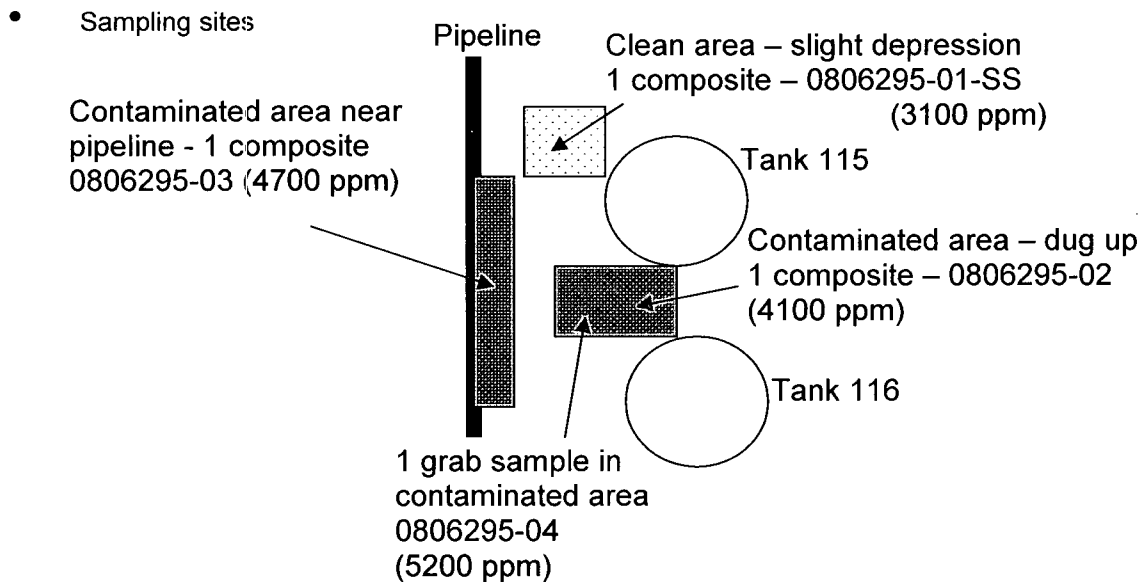


Figure 9: Second set of results after excavation had occurred.

Laboratory data for these samples are also presented in Appendix A. These results show levels of DRO of the order of 4000 - 5000 ppm that were found at the bottom of the excavated area even after 2 feet of contaminated dirt had been removed.

We have assessed the potential for contaminants from this current spill to migrate into the subsurface as being much less than 2 feet. We have excavated soils to this level and disposed off these soils at a permitted landfill. We believe that the levels of DRO being found below this level are probably from previous historical occurrences. Also, near the active pipelines located within the spill area that bring product in and out of the tanks it is not possible for us to excavate deeper without prejudice to the safety of these pipelines. We have reduced the levels of contamination by a factor greater than 10. However, there is some contamination at the level of approximately 4000 – 5000 ppm of DRO existing at the site.

3.0 Abatement Options

What can be done about possible past spills now that the site is covered?

Our approach has been the following:

- We have modeled the likely spread of contaminants into the subsurface using an EPA-approved model called CHEMFLO. We assumed a loamy-clay soil with 1

foot of ponded liquids on top. No contamination was predicted to travel deeper than about 1-2 feet even if the liquids stayed at a 1 foot depth on the surface for over 1000 hours – this was not the case in practice as product was picked up within a few hours after the spill. Details are provided in Appendix A. This lends support to the conclusion that contaminated soils below two feet is probably from previous activities.

- We have carried out a test of passive venting at the site, using a perforated pipe emplaced in to the soil above an area of contamination and started collecting measurements of vapor concentrations within this pipe. Figure 10 depicts a photograph of the perforated pipe we constructed, and Figure 11 shows it in place near a pipeline where it is difficult to excavate.

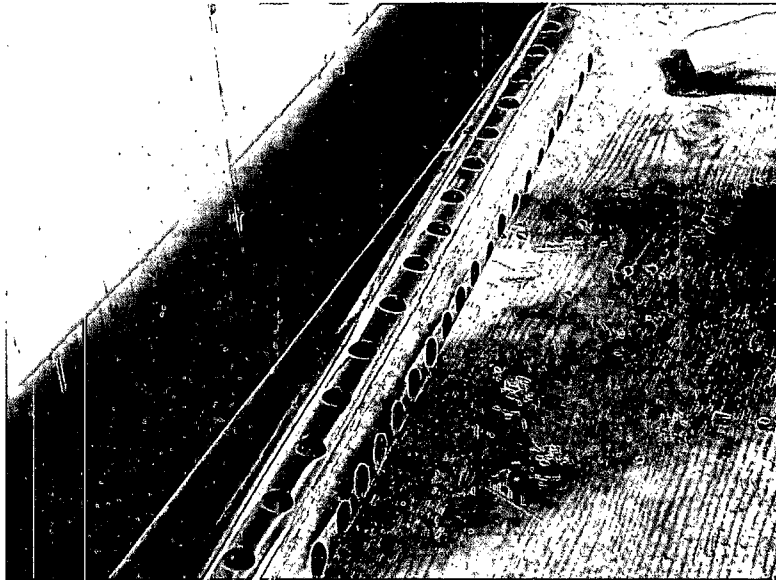


Figure 10: Perforated pipe that has been constructed

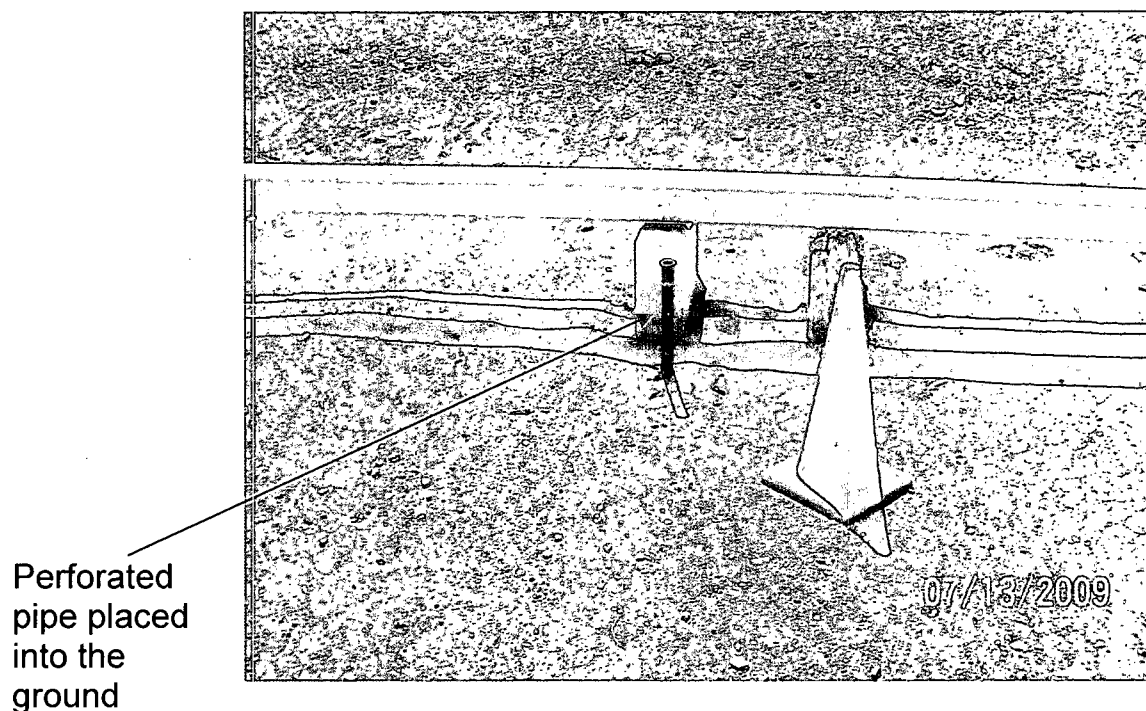


Figure 11: Photograph of emplaced pipe – the section with holes is inside the ground

Over time, vapor concentrations found within the pipe varied considerably. To monitor these concentrations we used a sensitive hydrocarbon vapor detection system based on a flame ionization detector. The concentrations could have been varying because microbial activity within the ground was being enhanced by virtue of the perforated pipe allowing increased air to breathe into the soil. These changing levels could also be from diurnal variations in the flow of soil gases as the ground heats and cools. We monitored these levels for a period of 12 months. Then, we collected a soil sample from this location which was previously known to be at 4700 ppm of DRO. **This level is now 190 ppm.** Details of this set of samples are provided in Figure 12. (We were confident that the entire road surface and buried valve area had been entirely cleaned up – however, as confirmatory samples had not been taken we have collected these and results are also provided.) We will now place more such pipes with OCD's concurrence to reduce contamination that is known to exist within the ground. We also seek OCD's concurrence to postpone further excavation until an opportune time arises in the future, and/or the area is taken out of service.

Sampling Plan – Tank 116

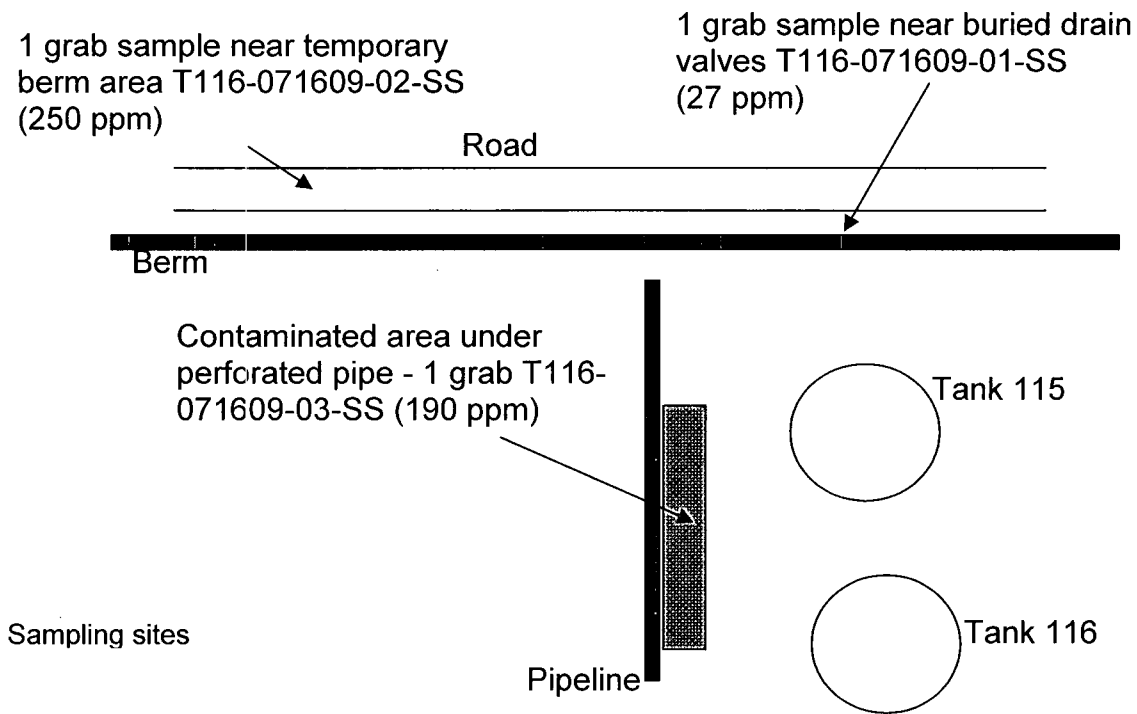


Figure 12: Last set of data from a third sampling event

4.0 Conclusions

As the spill site is an active work area, and because of the close proximity of functioning pipelines, we have been compelled to fill in the excavated areas (excavated to 2 feet) after having removed known contaminated dirt. We request the Oil Conservation Division (OCD) to allow us to add more perforated pipes at the location and continue to reduce the DRO levels that were found to exist at the site (of the order of 4000 – 5000 ppm). When this area is removed from service, we will clean up all contaminated soils to required levels if any are found.

APPENDIX A

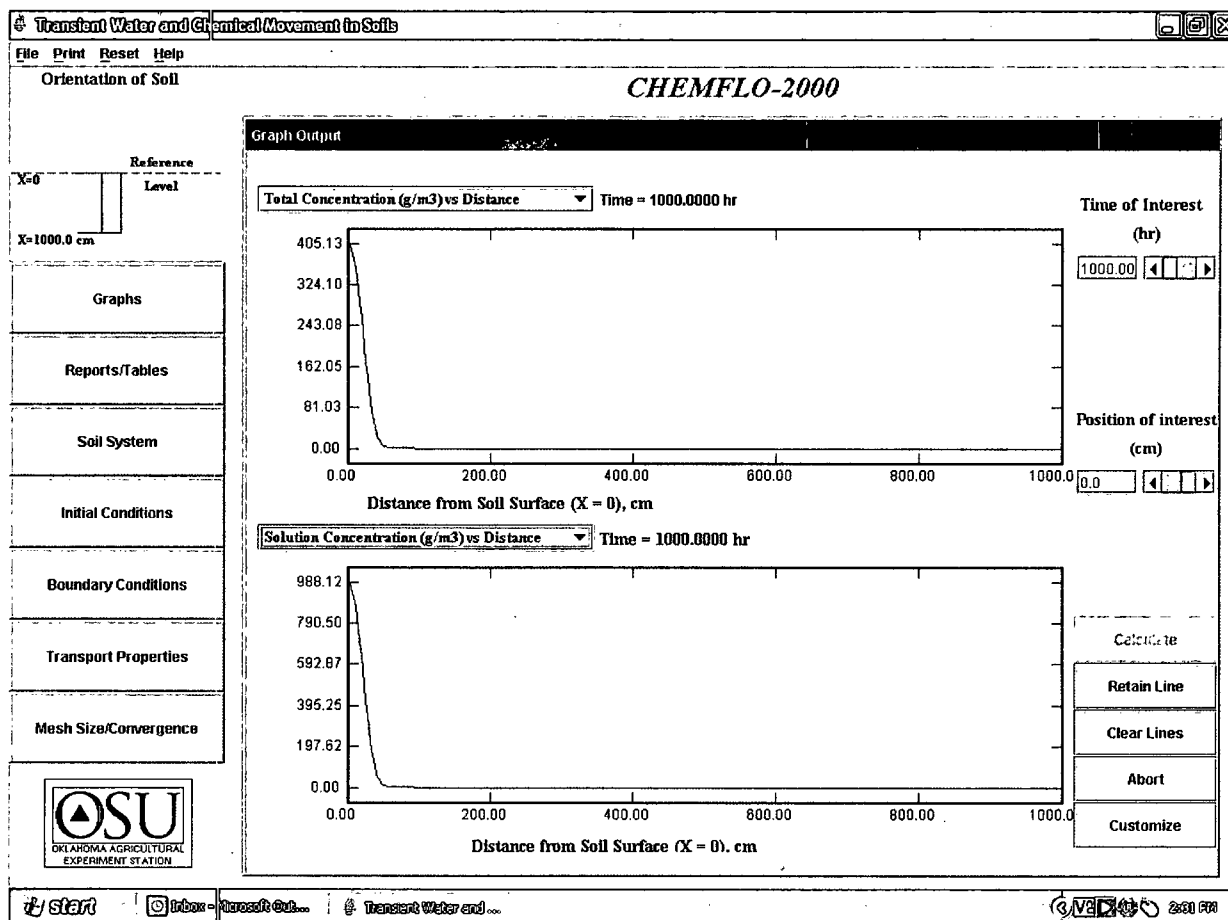


Figure A.1: Likely migration of contaminants into the subsurface – as can be seen, even after 1000 hours, no contamination is expected deeper than about 50 cm (1.6 feet). Therefore, it is extremely likely that contamination found deeper than 2 feet was from previous spills.

Assumptions in the model –

Figure A.2 presents details of the soil parameters built into the model. We assumed a sandy clay loam. Figure A.3 presents assumed chemical transport parameters.

CHEMFLO-2000

Select Soil of Interest

Soil: Sandy Clay Loam ▼

☒ Finite Length Soil

Soil Length (cm): 500.0 ◀ ||| ▶

☐ Semi-infinite Soil

Angle of Inclination, (degrees):

90 ◀ ||| ▶

Layer	Thickness (cm)	Conductivity Function	Water Characteristic Function	Organic Carbon (g/g)	Bulk Density (Mg/m ³)
1	500.0	van Genuchten	van Genuchten	0.014	1.62
		K_s (cm/hr) = 1.31	θ_s (v/v) = 0.39		
		α (1/cm) = 0.059	θ_r (v/v) = 0.1		
		n = 1.48	α (1/cm) = 0.059		
			n = 1.48		

Figure A.2: Assumed soil parameters

CHEMFLO-2000

Transport Properties

Diffusion Coefficient of Chemical in Water(cm ² /hr)	0.03528 ◀ ▶
Dispersivity (cm)	0.12 ◀ ▶
Uniform Partition Coefficient (m ³ /Mg soil)	▼ 0.095 ◀ ▶
Uniform 1st-Order Degradation Const. in Liquid (1/hr)	▼ 0.47 ◀ ▶
Uniform 1st-Order Degradation Const. on Solids (1/hr)	▼ 0.0004 ◀ ▶
Uniform Zero-Order Production Constant (g/m ³ /hr)	▼ 0.0 ◀ ▶

Figure A.3: Assumed chemical transport properties

CLIENT: Western Refining Southwest, Gallup
Project: Tank-116-Spill Site

Lab Order: 0806136

Lab ID: 0806136-01
Client Sample ID: T-116-060908-01-SS

Collection Date: 6/9/2008 9:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	6/12/2008 7:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 7:15:26 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 7:15:26 PM

Lab ID: 0806136-02
Client Sample ID: T-116-060908-02-SS

Collection Date: 6/9/2008 9:05:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	10000	200		mg/Kg	20	6/12/2008 7:49:50 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	6/12/2008 7:49:50 PM
Surr: DNOP	135	61.7-135	S	%REC	20	6/12/2008 7:49:50 PM

Lab ID: 0806136-03
Client Sample ID: T-116-060908-03-SS

Collection Date: 6/9/2008 9:10:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	50000	1000		mg/Kg	100	6/12/2008 8:24:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 8:24:14 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 8:24:14 PM

Lab ID: 0806136-04
Client Sample ID: T-116-060908-04-SS

Collection Date: 6/9/2008 9:15:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	31000	500		mg/Kg	50	6/12/2008 9:33:04 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	6/12/2008 9:33:04 PM
Surr: DNOP	0	61.7-135	S	%REC	50	6/12/2008 9:33:04 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank	2	Page 1 of 2
	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				
Diesel Range Organics (DRO)	20000	1000		mg/Kg	100	6/12/2008 10:07:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	6/12/2008 10:07:28 PM
Surr: DNOP	0	61.7-135	S	%REC	100	6/12/2008 10:07:28 PM

Hall Environmental Analysis Laboratory, Inc.

Date: 31-Jul-09

CLIENT: Western Refining Southwest, Gallup
Project: T116**Lab Order:** 0907508**Lab ID:** 0907508-01**Collection Date:** 7/16/2009 2:00:00 PM**Client Sample ID:** T1160716090155**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	27	10		mg/Kg	1	7/31/2009
Motor Oil Range Organics (MRO)	120	50		mg/Kg	1	7/31/2009
Surr: DNOP	67.3	61.7-135		%REC	1	7/31/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 2:41:54 PM
Surr: BFB	107	58.8-123		%REC	1	7/30/2009 2:41:54 PM

Lab ID: 0907508-02**Collection Date:** 7/16/2009 2:15:00 PM**Client Sample ID:** T1160716090255**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	250	50		mg/Kg	5	7/30/2009
Motor Oil Range Organics (MRO)	250	250		mg/Kg	5	7/30/2009
Surr: DNOP	77.9	61.7-135		%REC	5	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:12:28 PM
Surr: BFB	102	58.8-123		%REC	1	7/30/2009 3:12:28 PM

Lab ID: 0907508-03**Collection Date:** 7/16/2009 2:25:00 PM**Client Sample ID:** T1160716090355**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	190	10		mg/Kg	1	7/30/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/30/2009
Surr: DNOP	83.5	61.7-135		%REC	1	7/30/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2009 3:43:00 PM
Surr: BFB	97.6	58.8-123		%REC	1	7/30/2009 3:43:00 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.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received:

7/28/2009

Work Order Number 0907508

Received by: AT

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name Client drop-off

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 type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input 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"/>	

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

8.6"

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____



GALLUP REFINERY

WNR
LISTED
NYSE

CERTIFIED MAIL: 7008 2810 0000 4726 1048

RECEIVED

June 22, 2009

2009 JUL 23 PM 1 05

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Attention: Mr. John E. Keiling, Program Manager
Permits Management Program
Hazardous Waste Bureau

Reference: REQUEST FOR "CONTAINED-IN" DETERMINATION FOR PETROLEUM
CONTAMINATED SOILS RESULTING FROM API SEPARATOR OVERFLOW ON
JUNE 10, 2009;
WESTERN REFINING-SOUTHWEST (GALLUP REFINERY)(previously known as:
Giant Refining Co.)
EPA ID#: NMD000333211

Dear Mr. Keiling,

In accordance with the regulation established under 20.4.1.800 NMAC and 40CFR268.7 (e) for excavated petroleum contaminated soils, Western Refining-Southwest (Gallup Refinery) is requesting a "Contained-In" Determination for Petroleum Contaminated Soil from an overflow of the New API Separator (NPAIS) that occurred on June 10, 2009 due to an excessive rain event. Western Refining is also graciously asking for the Agency to provide an expeditious ruling on this determination if at all possible based on the supplied information.

On Wednesday, June 10, 2009 at approximately 0230 hrs, Western Refining-Southwest (Gallup Refinery) had a moderate rain event due to storms passing through the area. The new API began overflowing from the top onto the ground. At the time, only the West bay of the New API (NAPI) was operational because the east Bay was down for repairs. An above ground Baker Frac Tank located in the vicinity of or near the new API is used for overflow during upset or excessive rain conditions. Oily water from Process Sewers comingles with stormwater from area slabs flow directly to the new APIS. Under normal conditions when both bays are operational, the API can handle such an event. However, during this rain event, the API began to fill to an overflow condition because the East Bay was down for repairs. A small portion began to seep out of the top of the API as well, primarily water. Most of API overflow went along the backside of the API toward and slightly past the Baker Tank. (Refer to API and Lagoon Diagram and API Area Enlarged Area Diagram) The overflow from the Baker Tank was all contained in a berm surrounding the tank. There was not any oil or oily sheen observed to be in the area where the API overflowed from its top or in the Frac Tank containment berm. It continued raining from about 0430 hrs to 0630 hrs (about 1 1/2 to 2 hrs). The

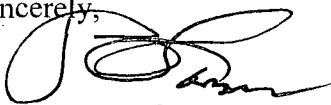
total amount of rainfall was about 0.76 inches during this time frame. At approximately 0500 hrs on Wednesday, June 10, 2009, the API (Off-site) Relief Supervisor notified Facility Management personnel. The Environmental Department was notified at approximately 0524 hrs. Environmental personnel arrived at the facility at approximately 0609 hrs, June 10, 2009. A site determination and evaluation was conducted immediately. Assessment and cleanup operations were immediately initiated by Maintenance and Contract personnel.

Cleanup operations were initiated. An Outside Contract Vacuum Truck Service (Veolia Environmental Services) was deployed to the facility to begin vacuuming up any liquids from the API overflow areas. After the vacuum operation concluded, Veolia removed approximately 31,700 gallons (754.76 bbls) of oily/water mixture. The amount of oil recovered from this operation was calculated to be approximately 11.79 gallons (0.28 bbls) based on information supplied by Veolia and best engineering methodology. Maintenance and Contract personnel began removing or remediating in and around the API and associated areas by removing approximately 1 to 2 inches contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels. Cleanup crews removed soils along the backside of API extending north alongside the Baker Frac Tank as well as removing material where the API flowed over the road depression to Aeration Lagoon #1. Also, a cleanup crew was deployed to remove contaminated soil within the Baker Frac Tank containment dike area. Remedial activities terminated on or about June 24, 2009. After completion of remedial activities, a composite sample of the excavated material was collected by the Environmental Department, and submitted to Hall Environmental Laboratories for analysis. The sample was submitted to Hall Laboratory to be analyzed for the following parameters: RCI, TCLP Metals/1311, TCLP Voas/1311, Hexavalent Chromium (Cr+6), TCLP Semi-voas/1311, and Total Petroleum Hydrocarbon (TPH). The analysis from Hall Environmental Laboratory (date of collection: 6/25/2009) for these parameters indicated non-hazardous for all parameters. (Refer to API Overflow Sampling Analysis) Under normal conditions the API overflow material normally would be declared as a hazardous waste (F037/F038) and properly disposed accordingly; however, based on the analytical data and the small quantity of material generated, Western Refining (Southwest) is thereby asking from the New Mexico Environmental Department- Hazardous Waste Bureau for a "Request for Contained-in Determination for Petroleum Contaminated Soils from the API Overflow of June 10, 2009" in order to allow proper off-site disposal of this material as a non-hazardous waste stream. (Reference to 20.4.1.800 NMED and 40CFR268.7 (e)) The quantity excavated has been estimated to be approximately 20 to 30 yd³ (cubic yards) or (1 to 1 ½ roll-off boxes). (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams)

All remedial activities and modifications to API and surrounding areas have been completed. A complete description of the overflow will be described in the following inclusions. Please find included a copy of the OCD "Release Notification and Corrective Action Forms (C-141)(Initial and Final) Reports, the API & Aeration Lagoon Area Diagram, the API Area Enlarged Diagram, the NMED Correspondence (e-mail) of June 22, 2009, and API Sample Analysis from Hall Environmental Laboratories, June 25, 2009.

Once again, Western Refining is graciously asking for the Agency to provide an expeditious ruling on this determination if at all possible based on the supplied information. If you require additional information, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen, CHMM, REM
Environmental Engineer
Western Refining-Southwest (Gallup Refinery)

Enc: API & Aeration Lagoon Area Diagram
API Area Enlarged Diagram
NMED Correspondence (e-mail) of June 22, 2009
OCD (Release Notification and Corrective Action, C-141 (Initial) Report
OCD (Release Notification and Corrective Action, C-141 (Final) Report
API Overflow Sampling Analysis (Hall Environmental Laboratories), 6/25/2009

Cc: Ms Hope Monzeglio, New Mexico Environmental Department- Hazardous Waste Bureau
Mr. Carl J. Chavez, New Mexico Oil Conservation Division (NMOCD)
Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager
File

Larsen, Thurman

From: Monzeglio, Hope, NMENV [hope.monzeglio@state.nm.us]
Sent: Monday, June 22, 2009 9:18 AM
To: Larsen, Thurman; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Dougherty.Joel@epamail.epa.gov
Subject: RE: API separator overflows

I spoke with Beck this morning and there was a miscommunication on my part; there was only one API separator overflow that occurred on June 10th. An overflow did not occur on the 16. Beck with still complete a write up on the event. Let me know if anyone has questions.

Thanks
Hope

From: Monzeglio, Hope, NMENV
Sent: Thursday, June 18, 2009 9:53 AM
To: 'Thurman B. Larsen'; 'Riege, Ed'
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; 'Dougherty.Joel@epamail.epa.gov'
Subject: API separator overflows

Beck

For the API separator overflows that occurred on June 10 and June 16, 2009, please send NMED a letter that describes the sources of the overflows, where the discharges went, identify the reasons for the overflows (why are the overflows occurring during rain events) and describe Western's remedial actions to cleanup the overflows (include actions to be taken to prevent this from happening in the future). The letter must have an attached site plan that shows the source of the overflows and where the discharges went. Please have this information to NMED on or before July 27, 2009.

Let me know if you have additional questions.

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

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section 28	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

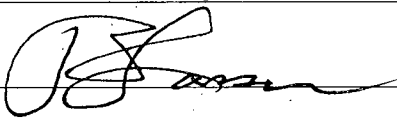
Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, the API overflowed. A description of the incident was previously provided to the Agency on the initial C-141.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began on June 10, 2009. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about June 26, 2009.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7/21/2009	Phone: (505) 722-0258		

District I
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Revised October 10, 2003

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District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen	
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258	
Facility Name Gallup Refinery	Facility Type Refinery	
Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

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

Latitude 35° 29'030'' Longitude 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*


Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. As soon as it started raining, the Wastewater Operators and Supervisors started pumping water from new API to the old API in order to reduce the level in the new API. They also started up a "yellow" trash pump in front of the new API going to the old API.. The Baker Tank started filling up until it overflowed. The API Operators blocked in the Baker Tank At approximately 0330 hrs, the new API began overflowing from the top onto the ground. Only the West Bay is operational since the East Bay of the API is down for repairs. The overflow lasted for about 30 minutes. However, the overflow from the Baker Tank was contained in the berm area surrounding the tank. At approximately 0430 hrs, the old API began draining into Aeration Lagoon #1 due to excessive stormwater, thus by-passing the Benzene Strippers. It continued raining from about 0430 to 0630 hrs. (about 1 1/2 to 2 hrs). At 0630 hrs, flow stopped from the old API in to Lagoon #1. The amount of rainfall was about 0.76 inches during this time period. During this rain event, the old API sump was being pumped continuously to Tank (T-107) in order to control the level in the old API. At approximately 0500 hrs on Wednesday, June 10, 2009, the Process Shift Superintendent, initially notified Richard Schmitt that the API was overflowing. Then, Mr. Schmitt notified Mr. Mark Turri, Joel Quinones, James Geer, and the Environmental Department about the incident. The Environmental Department was officially notified on Wednesday, 6/10/2009 at approximately 0524 hrs. Environmental personnel arrived at 0609 hrs, Wednesday, June 10, 2009. A site determination and evaluation proceeded during daylight hours. The actual quantity of oil released is difficult to measure with any accuracy. Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. Final quantification was determined to be approximately <2.0 bbls of oil discharged, a crude estimation. All recoverable liquid in areas (oil/water mixtures) around the API and Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API.

Describe Area Affected and Cleanup Action Taken.*

Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. All recoverable liquids in areas (oil/water mixture) around the API and the Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API. Soil and area remediation around API and Baker Tanks is in progress.

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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/22/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

COVER LETTER

Friday, July 10, 2009

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sampling

Order No.: 0906532

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/25/2009 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: 10-Jul-09

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0906532
Project: API Overflow Sampling
Lab ID: 0906532-01

Client Sample ID: API Overflow
Collection Date: 6/24/2009 10:30:00 AM
Date Received: 6/25/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY, TCLP						Analyst: MMS
Mercury	ND	0.020		mg/L	1	6/26/2009 5:50:15 PM
EPA METHOD 6010B: TCLP METALS						Analyst: SNV
Arsenic	ND	5.0		mg/L	1	7/10/2009 8:06:43 AM
Barium	ND	100		mg/L	1	7/10/2009 7:09:28 AM
Cadmium	ND	1.0		mg/L	1	7/10/2009 7:09:28 AM
Chromium	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
Lead	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
Selenium	ND	1.0		mg/L	1	7/10/2009 7:09:28 AM
Silver	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
EPA METHOD 8270C TCLP						Analyst: JDC
2,4-Dinitrotoluene	ND	0.13		mg/L	1	6/29/2009
Hexachlorobenzene	ND	0.13		mg/L	1	6/29/2009
Hexachlorobutadiene	ND	0.50		mg/L	1	6/29/2009
Hexachloroethane	ND	3.0		mg/L	1	6/29/2009
Nitrobenzene	ND	2.0		mg/L	1	6/29/2009
Pentachlorophenol	ND	100		mg/L	1	6/29/2009
Pyridine	ND	5.0		mg/L	1	6/29/2009
2,4,5-Trichlorophenol	ND	400		mg/L	1	6/29/2009
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	6/29/2009
Cresols, Total	ND	200		mg/L	1	6/29/2009
Surr: 2,4,6-Tribromophenol	73.8	20.9-128		%REC	1	6/29/2009
Surr: 2-Fluorobiphenyl	60.4	18.3-119		%REC	1	6/29/2009
Surr: 2-Fluorophenol	52.0	16.6-101		%REC	1	6/29/2009
Surr: 4-Terphenyl-d14	65.0	32.3-135		%REC	1	6/29/2009
Surr: Nitrobenzene-d5	65.8	22.6-117		%REC	1	6/29/2009
Surr: Phenol-d5	41.0	8-77.9		%REC	1	6/29/2009
VOLATILES BY 8260B/1311						Analyst: NSB
Benzene	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
2-Butanone	ND	10		mg/L	1	7/4/2009 5:24:59 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Chlorobenzene	ND	100		mg/L	1	7/4/2009 5:24:59 PM
Chloroform	ND	6.0		mg/L	1	7/4/2009 5:24:59 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	7/4/2009 5:24:59 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	7/4/2009 5:24:59 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	7/4/2009 5:24:59 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Vinyl chloride	ND	0.20		mg/L	1	7/4/2009 5:24:59 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: 10-Jul-09

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0906532
Project: API Overflow Sampling
Lab ID: 0906532-01

Client Sample ID: API Overflow
Collection Date: 6/24/2009 10:30:00 AM
Date Received: 6/25/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: NSB
Surr: 1,2-Dichloroethane-d4	100	69.9-130		%REC	1	7/4/2009 5:24:59 PM
Surr: 4-Bromofluorobenzene	98.2	71.2-123		%REC	1	7/4/2009 5:24:59 PM
Surr: Dibromofluoromethane	102	73.9-134		%REC	1	7/4/2009 5:24:59 PM
Surr: Toluene-d8	98.7	81.9-122		%REC	1	7/4/2009 5:24:59 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	3900	400		mg/Kg	20	6/26/2009

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



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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

June 29, 2009

Date Received : June 26, 2009
Description : 0906532

Sample ID : API OVERFLOW

Collected By :
Collection Date : 06/24/09 10:30

ESC Sample # : L409538-01

Site ID :

Project # : 0906532

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	06/27/09	1
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/27/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	06/29/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	06/29/09	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	06/28/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/29/09 16:27 Printed: 06/29/09 16:27
L409538-01 (IGNITABILITY) - Did Not Ignite @ 170F

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L409538-01	WG428532	SAMP	Chromium, Hexavalent	R795546	J6



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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Quality Assurance Report Level II

Albuquerque, NM 87109

L409538

June 29, 2009

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Chromium, Hexavalent	< 2	mg/kg			WG428532	06/27/09 13:26
Corrosivity	2.80				WG428517	06/27/09 11:10
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/kg			WG428681	06/28/09 17:00

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate	% Rec				
Chromium, Hexavalent	mg/kg	0.00	0.00	0.00	0.00	20	L409428-01	WG428532
Corrosivity		0.00	0.00	0.00	0.00	10	L409010-01	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0.00	0.00	0.00	0.00	20	L409538-01	WG428681
Reactive CN (SW846 7.3.3.2)	mg/kg	0.00	0.00	0.00	0.00	20	L409538-01	WG428683
Ignitability	Deg. F	0.00	0.00	0.00	0.00	10	L409538-01	WG428687

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Chromium, Hexavalent	mg/kg	102	82.5	80.9	50-143	WG428532
Corrosivity		9.04	8.90	98.5	97.4-102.6	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	100	82.0	82.0	70-130	WG428681
Ignitability	Deg. F	82	82.0	100	96-104	WG428687

Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	% Rec				
Chromium, Hexavalent	mg/kg	81.9	82.5	80.0	50-143	0.730	WG428532
Corrosivity		8.90	8.90	98.0	97.4-102.6	0.00	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	82.0	82.0	82.0	70-130	0.00	WG428681
Ignitability	Deg. F	82.0	82.0	100	96-104	0.00	WG428687

Analyte	Units	Matrix Spike		% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res				
Chromium, Hexavalent	mg/kg	11.7	10.00	85.5	80-120	L409538-01	WG428532

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



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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Quality Assurance Report
Level II

Albuquerque, NM 87109

L409538

June 29, 2009

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit Ref Samp	Batch
			Ref	%Rec				
Chromium, Hexavalent	mg/kg	14.5	13.7	71	80-120	3.58	20.8	L409538-01

Batch number / Run number / Sample number cross reference

WG428532: R795546: L409538-01
WG428517: R796588: L409538-01
WG428681: R796589: L409538-01
WG428683: R796746: L409538-01
WG428687: R797027: L409538-01

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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 418.1: TPH									
Sample ID: MB-19472		MBLK				Batch ID: 19472	Analysis Date:		6/26/2009
Petroleum Hydrocarbons, TR	ND	mg/Kg	20						
Sample ID: LCS-19472		LCS				Batch ID: 19472	Analysis Date:		6/26/2009
Petroleum Hydrocarbons, TR	85.50	mg/Kg	20	85.5	82	114			
Sample ID: LCSD-19472		LCSD				Batch ID: 19472	Analysis Date:		6/26/2009
Petroleum Hydrocarbons, TR	95.42	mg/Kg	20	95.4	82	114	11.0	20	

Method: Volatiles by 8260B/1311

Sample ID: mb-19468		MBLK				Batch ID: 19468	Analysis Date:		7/4/2009 4:00:13 PM
Benzene	ND	mg/L	0.50						
2-Butanone	ND	mg/L	10						
Carbon Tetrachloride	ND	mg/L	0.50						
Chlorobenzene	ND	mg/L	100						
Chloroform	ND	mg/L	6.0						
1,4-Dichlorobenzene	ND	mg/L	7.5						
1,2-Dichloroethane (EDC)	ND	mg/L	0.50						
1,1-Dichloroethene	ND	mg/L	0.70						
Hexachlorobutadiene	ND	mg/L	0.50						
Tetrachloroethene (PCE)	ND	mg/L	0.70						
Trichloroethene (TCE)	ND	mg/L	0.50						
Vinyl chloride	ND	mg/L	0.20						
Sample ID: lcs-19468		LCS				Batch ID: 19468	Analysis Date:		7/4/2009 3:31:53 PM
Benzene	0.1367	mg/L	0.010	34.2	51.1	171			S
Chlorobenzene	0.06556	mg/L	0.010	16.4	36.1	191			S
1,1-Dichloroethene	0.09015	mg/L	0.010	22.5	49.1	162			S
Trichloroethene (TCE)	0.05354	mg/L	0.010	13.4	41.2	166			S

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, Gallup
 Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8270C TCLP

Sample ID: mb-19499 MBLK Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	ND	mg/L	0.13						
Hexachlorobenzene	ND	mg/L	0.13						
Hexachlorobutadiene	ND	mg/L	0.50						
Hexachloroethane	ND	mg/L	3.0						
Nitrobenzene	ND	mg/L	2.0						
Pentachlorophenol	ND	mg/L	100						
Pyridine	ND	mg/L	5.0						
2,4,5-Trichlorophenol	ND	mg/L	400						
2,4,6-Trichlorophenol	ND	mg/L	2.0						
Cresols, Total	ND	mg/L	200						

Sample ID: lcs-19499 LCS Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	0.07790	mg/L	0.010	77.9	24.8	102			
Hexachlorobenzene	0.05940	mg/L	0.010	59.4	20.2	72.5			
Hexachlorobutadiene	0.06098	mg/L	0.010	61.0	20.1	100			
Hexachloroethane	0.06236	mg/L	0.010	62.4	29.2	95			
Nitrobenzene	0.07112	mg/L	0.010	71.1	34.4	94.7			
Pentachlorophenol	0.05852	mg/L	0.010	58.5	8.63	96.2			
Pyridine	0.04090	mg/L	0.010	40.9	12.5	64.7			
2,4,5-Trichlorophenol	0.06626	mg/L	0.010	66.3	16.7	98			
2,4,6-Trichlorophenol	0.05820	mg/L	0.010	58.2	20.9	93.5			
Cresols, Total	0.1652	mg/L	0.010	55.1	12.6	88.1			

Sample ID: lcsd-19499 LCSD Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	0.07390	mg/L	0.010	73.9	24.8	102	5.27	27.8	
Hexachlorobenzene	0.05446	mg/L	0.010	54.5	20.2	72.5	8.68	36.1	
Hexachlorobutadiene	0.05928	mg/L	0.010	59.3	20.1	100	2.83	39.1	
Hexachloroethane	0.05714	mg/L	0.010	57.1	29.2	95	8.74	57.2	
Nitrobenzene	0.06044	mg/L	0.010	60.4	34.4	94.7	16.2	44.7	
Pentachlorophenol	0.05836	mg/L	0.010	58.4	8.63	96.2	0.274	24.7	
Pyridine	0.03872	mg/L	0.010	38.7	12.5	64.7	5.48	77.5	
2,4,5-Trichlorophenol	0.06422	mg/L	0.010	64.2	16.7	98	3.13	34.6	
2,4,6-Trichlorophenol	0.05684	mg/L	0.010	56.8	20.9	93.5	2.36	32.8	
Cresols, Total	0.1444	mg/L	0.010	48.1	12.6	88.1	13.4	46.3	

Method: MERCURY, TCLP

Sample ID: MB-19479 MBLK Batch ID: 19479 Analysis Date: 6/26/2009 5:36:11 PM

Mercury	ND	mg/L	0.020						
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Sample ID: LCS-19479 LCS Batch ID: 19479 Analysis Date: 6/26/2009 5:37:54 PM

Mercury	ND	mg/L	0.020	97.0	80	120			
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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, Gallup

Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: TCLP Metals									
Sample ID: 0906532-01AMSD		<i>MSD</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:14:37 AM	
Cadmium	ND	mg/L	1.0	101	75	125	0	20	
Chromium	ND	mg/L	5.0	92.6	75	125	0	20	
Lead	ND	mg/L	5.0	89.9	75	125	0	20	
Selenium	ND	mg/L	1.0	111	75	125	0	20	
Silver	ND	mg/L	5.0	104	75	125	0	20	
Sample ID: 0906532-01AMSD		<i>MSD</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:22:20 AM	
Barium	ND	mg/L	100	97.5	75	125	0	20	
Sample ID: 0906532-01AMSD		<i>MSD</i>				Batch ID: 19523	Analysis Date:	7/10/2009 8:13:31 AM	
Arsenic	ND	mg/L	5.0	99.7	75	125	0	20	
Sample ID: MB-19523		<i>MBLK</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:02:39 AM	
Arsenic	ND	mg/L	5.0						
Barium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
Lead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0						
Silver	ND	mg/L	5.0						
Sample ID: MB-19523		<i>MBLK</i>				Batch ID: 19523	Analysis Date:	7/10/2009 8:01:39 AM	
Arsenic	ND	mg/L	5.0						
Sample ID: LCS-19523		<i>LCS</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:06:54 AM	
Arsenic	ND	mg/L	5.0	110	80	120			
Barium	ND	mg/L	100	99.1	80	120			
Cadmium	ND	mg/L	1.0	106	80	120			
Chromium	ND	mg/L	5.0	99.8	80	120			
Lead	ND	mg/L	5.0	97.0	80	120			
Selenium	ND	mg/L	1.0	107	80	120			
Silver	ND	mg/L	5.0	104	80	120			
Sample ID: LCS-19523		<i>LCS</i>				Batch ID: 19523	Analysis Date:	7/10/2009 8:04:10 AM	
Arsenic	ND	mg/L	5.0	114	80	120			
Sample ID: 0906532-01AMS		<i>MS</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:12:04 AM	
Cadmium	ND	mg/L	1.0	105	75	125			
Chromium	ND	mg/L	5.0	95.9	75	125			
Lead	ND	mg/L	5.0	93.6	75	125			
Selenium	ND	mg/L	1.0	113	75	125			
Silver	ND	mg/L	5.0	105	75	125			
Sample ID: 0906532-01AMS		<i>MS</i>				Batch ID: 19523	Analysis Date:	7/10/2009 7:19:45 AM	
Barium	ND	mg/L	100	103	75	125			
Sample ID: 0906532-01AMS		<i>MS</i>				Batch ID: 19523	Analysis Date:	7/10/2009 8:09:15 AM	
Arsenic	ND	mg/L	5.0	98.6	75	125			

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 GALLU

Date Received:

6/25/2009

Work Order Number 0906532

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 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"/>	

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

3.1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

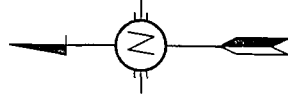
Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

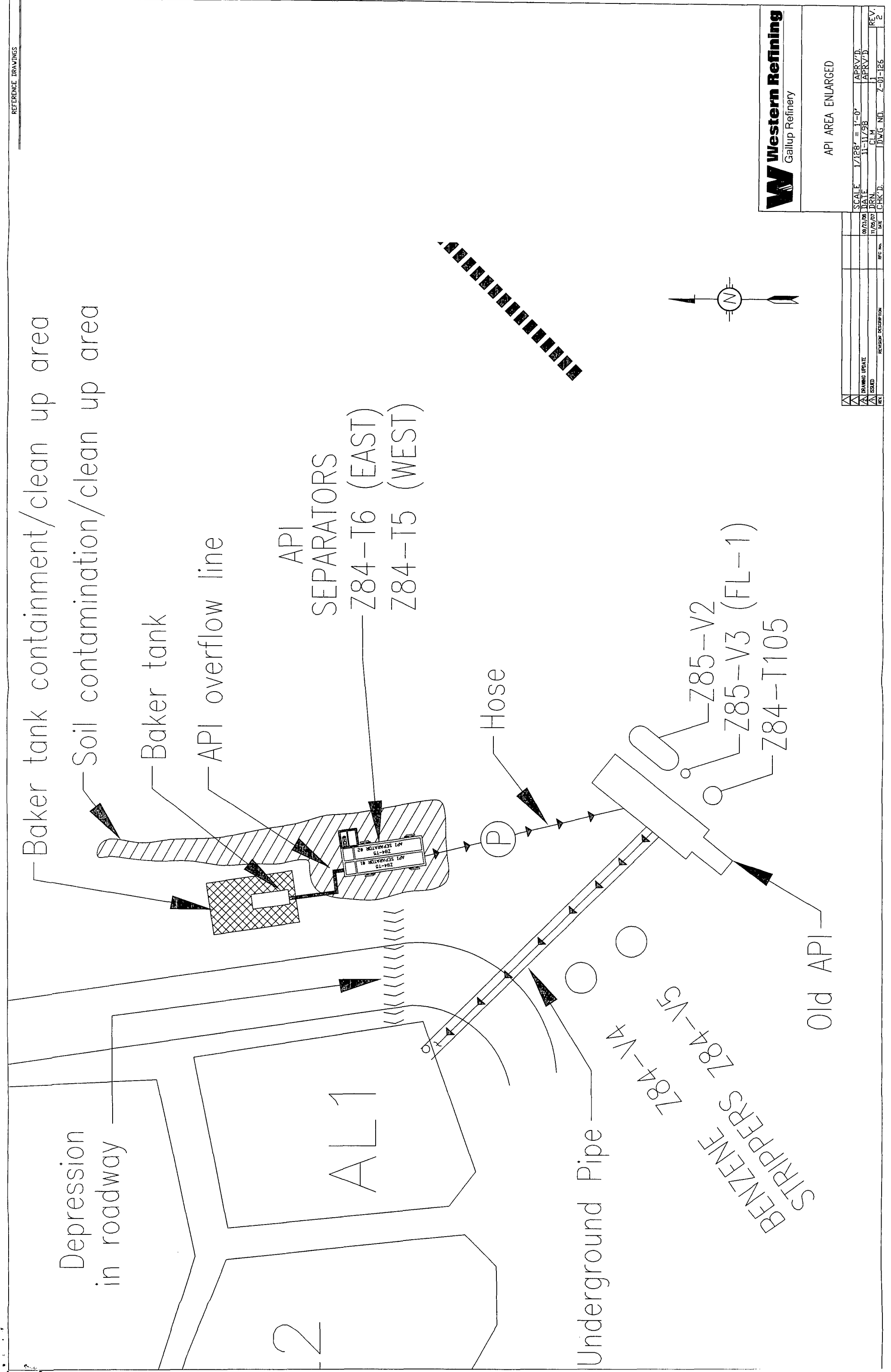
REFERENCE DRAWINGS




Western Refining
Gallup Refinery

API & AERATION LAGOON AREA

[illegible]



**Western Refining**
Gallup Refinery

API AREA ENLARGED

REV.	DESCRIPTION	DATE	CHK'D	APP'D	SCALE	DATE	REV.
1	11-11-98	11-11-98	1	1	1/28' = 1'-0'	11-11-98	1
2	17-05-07	17-05-07	1	1	1/28' = 1'-0'	17-05-07	2

SCALE	1/28' = 1'-0'	APPROV'D.	
DATE	11-11-98	APPROV'D.	
CHK'D	1	CHK'D	
DATE	17-05-07	DATE	
REV.	2	REV.	



GALLUP REFINERY

WNR
LISTED
NYSE

CERTIFIED MAIL: 7008 0000 4726 1055

July 23, 2009

RECEIVED
2009 JUL 23 PM 1 00

New Mexico Environmental Department (NMED)
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505
Attention: Ms Hope Monzeglio

New Mexico Energy Minerals and Natural Resources Department
New Mexico Oil Conservation Division (NMOCD)
1220 South Street-Francis Drive
Santa Fe, New Mexico 87505
Attn: Mr. Carl J. Chavez

Reference: API OVERFLOW on JUNE 10, 2009

Dear Ms Monzeglio and Mr. Chavez;

Please accept the following letter is in response to an e-mail (June 18, 2009) from Ms Hope Monzeglio of the New Mexico Environmental Department (NMED) - Hazardous Waste Bureau (HWB). This e-mail references two separate events, one on June 10, the other on June 16, 2009. Once again it should be clarified that the API overflowed only once, June 10, 2009. A verbal communication was made between Western Refining and NMED (HWB) to correct and clarify this information on June 22, 2009.

The following information shall address by describing the nature of the event leading to and causes of the overflow event, remedial actions that were taken, and corrective action made to the API area in order to prevent future occurrence. Diagrams have been included in order to provide a visual reference of the API area, extent of contamination, and to aid in a better understanding of the event. Also enclosed are e-mails and Release Notification Forms (C-141) (Initial and Final) Reports for your reference.

DESCRIPTION AND CAUSES OF OVERFLOW EVENT: (Refer to API & AERATION LAGOON and API AREA ENLARGED DIAGRAMS)

On Wednesday, June 10, 2009 at approximately 0230 hrs, Western Refining-Southwest (Gallup Refinery) had a moderate rain event due to storms passing through the area. At approximately 0330 hrs, the new API began overflowing from the top onto the ground. At the time, only the West bay of the New API (NAPI) was operational because the east Bay was down for repairs. An above ground Baker Frac Tank located in the vicinity of or near the new API is used for overflow during upset or excessive rain conditions. Oily water from Process Sewers comingles with stormwater from area slabs flow directly to the new APIS. Under normal conditions when both bays are operational, the API can handle such an event. However, during this rain event, the

API began to fill to an overflow condition because of the East Bay was down for repairs. A small portion began to seep out of the top of the API as well, primarily water. A small amount of seepage from the API overflow went across the roadway into Aeration Lagoon #1 due to a depression contour in the roadway (roadway erosion) between the New API (West Bay) and Aeration Lagoon #1. Also, some API overflow went along the backside of the API toward and slightly past the Baker Tank. When the API (West Bay) reached the overflow level, it began to flow into the Baker Frac Tank. The Baker Tank started filling up until it overflowed at the top of the tank. However, the overflow from the Baker Tank was all contained in a berm surrounding the tank. There was not any oil or oily sheen observed to be in the area where the API overflowed from its top or in the Frac Tank containment berm. The API Operator began pumping from the new API to the old API. At or approximately 0430 hrs, the old API reached an overfill level that drains directly into the Aeration Lagoon #1 due to excessive stormwater, thus bypassing the Benzene Strippers. (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams) It continued raining from about 0430 hrs to 0630 hrs (about 1 ½ to 2 hrs). The total amount of rainfall was about 0.76 inches during this time frame. At approximately 0500 hrs on Wednesday, June 10, 2009, the API (Off-site) Relief Supervisor notified Facility Management personnel. The Environmental Department was notified at approximately 0524 hrs. Environmental personnel arrived at the facility at approximately 0609 hrs, June 10, 2009. A site determination and evaluation was conducted immediately. Assessment and cleanup operations were immediately initiated by Maintenance and Contract personnel.

The road leading to and along side of the API and Lagoon Areas are close to grade. During moderate to heavy rain events, road conditions are nearly prohibitive for equipment and large vacuum truck due to the heavy clay in this area. Therefore, entry for vehicular traffic is extremely dangerous due to possibilities of sliding into the Aeration Lagoons. Due to these conditions, the vacuum truck could not reach the API and Baker Frac Tank Area in order to pump out the Frac Tank.

REMEDIAL ACTIVITIES/ CLEANUP OPERATIONS: (Refer to API & AERATION LAGOON and API AREA ENLARGED DIAGRAMS)

Cleanup operations were initiated. An Outside Contract Vacuum Truck Service (Veolia Environmental Services) was deployed to the facility to begin vacuuming up any liquids from the API overflow areas. After the vacuum operation concluded, Veolia removed approximately 31,700 gallons (754.76 bbls) of oily/water mixture. The amount of oil recovered from this operation was calculated to be 11.79 gallons (0.28 bbls) based on information supplied by Veolia and best engineering methodology. Maintenance and Contract personnel began removing or remediating in and around the API and associated areas by removing approximately 1 to 2 inches contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels. Cleanup crews removed soils along the backside of API extending north alongside the Baker Frac Tank as well as removing material where the API flowed over the road depression to Aeration Lagoon #1. Also, a cleanup crew was deployed to remove contaminated soil within the Baker Frac Tank containment dike area. Remedial activities terminated on or about June 24, 2009. After completion of remedial activities, a composite sample of the excavated material was collected by the Environmental Department, and submitted to Hall Environmental Laboratories for analysis. The sample was submitted to Hall Laboratory to be analyzed for the following

parameters: RCI, TCLP Metals/1311, TCLP Voas/1311, Hexavalent Chromium (Cr+6), TCLP Semi-voas/1311, and Total Petroleum Hydrocarbon (TPH). The analysis from Hall Environmental Laboratory (date of collection: 6/25/2009) for these parameters indicated non-hazardous for all parameters. (Refer to API Overflow Sampling Analysis) Under normal conditions the API overflow material normally would be declared as a hazardous waste (F037/F038) and properly disposed accordingly; however, based on the analytical data and the small quantity of material generated, a "Request for Contained-in Determination for Petroleum Contaminated Soils" has recently been submitted to the New Mexico Environmental Department- Hazardous Waste Bureau (Certified Mail: 7008 2810 0000 1048) requesting disposal of this material as a non-hazardous waste stream. (Reference to 20.4.1.800 NMED and 40CFR268.7 (e)) The quantity excavated has been estimated to be approximately 20 to 30 yd³ (cubic yards) or about 1 to 1 ½ roll-off boxes. (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams)

CORRECTIVE ACTIONS / IMPROVEMENTS FOR API AREA

After completion of the remedial project, Western began working on improvements in order to prevent a similar occurrence in the future. Several modification or upgrades to the API area have been completed. These modifications include the following items:

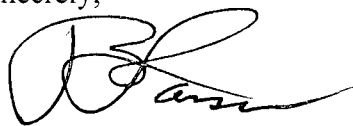
1. API Repair / Maintenance of East Bay-The East Bay of the API has been repaired and put back in to service. A stainless steel liner extension was added to the existing liner of the East Bay of the API in order to prevent future overflow leakage.
2. Road between the API (West Bay) and Aeration Lagoon #1- The road between Aeration Lagoon #1 and the API Separator was raised to approximately 8 to 10 inches by Sky West Construction (formerly Fuhs Trucking). This increase in road height provides a natural berm between the API and the Aeration Lagoon #1. The berm will act as a barrier to prevent any further discharge from any API overflows to reach the Aeration Lagoon #1. Also, the newly constructed road will allow vacuum trucks more accessibility to the API area during excessive rain events. The road way was compacted with a base of course clay-rock mixture in order to allow a firmer surface. The course clay-rock mixture was placed on the road for better traction. Previously, vacuum trucks would not be able to access this area during heavy rain due to the possibility of sliding in Aeration Lagoon #1 or getting stuck in that area.
3. Roadway from Flare to API area- The roadway from the flare to the API roadway was also increased 8 to 10 inches, using a course clay-rock mixture in order to allow for better accessibility by vehicular traffic to the API area.
4. Inlet Valve (6 inches) change- A 6 inch butterfly valve was changed to a 6 inch gate valve in order to prevent trash buildup within the valve. This modification will allow more volume to flow into the API.
5. Weir Box Screen Addition- A weir box screen was added to the weir box in order to prevent trash build-up going into the API, thus by improving operations. Also, by

placement of a screen into the weir box, it will prevent trash build-up into the Benzene Strippers and thereby improve stripping efficiency.

All modification and upgrades to the API and the ancillary equipment have been completed. Both bays to the API have been put back in service and are now fully operational.

If you require additional information concerning this matter, please contact me at (505) 722-0258.

Sincerely,

A handwritten signature in black ink, appearing to read 'Beck Larsen', with a stylized flourish at the end.

Beck Larsen-CHMM, REM
Environmental Engineer
Western Refining (Southwest)(Gallup Refinery)

Enc: NMED Agency, Letter of Request for "Contained-In Determination for Petroleum Contaminated Soil" from API Separator Overflow on June 10, 2009
API & Aeration Lagoon Area Diagram
API Area Enlarged Diagram
NMED Correspondence (e-mail) of June 22, 2009
OCD (Release Notification and Corrective Action, C-141 (Initial) Report
OCD (Release Notification and Corrective Action, C-141 (Final) Report
API Overflow Sampling Analysis (Hall Environmental Laboratories), 6/25/2009

Cc: Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager
File



GALLUP REFINERY

WNR
LISTED
NYSE

CERTIFIED MAIL: 7008 2810 0000 4726 1048

June 22, 2009

New Mexico Environmental Department
Hazardous Waste Bureau (HWB)
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Attention: Mr. John E. Keiling, Program Manager
Permits Management Program
Hazardous Waste Bureau

Reference: REQUEST FOR "CONTAINED-IN" DETERMINATION FOR PETROLEUM
CONTAMINATED SOILS RESULTING FROM API SEPARATOR OVERFLOW ON
JUNE 10, 2009;
WESTERN REFINING-SOUTHWEST (GALLUP REFINERY)(previously known as:
Giant Refining Co.)
EPA ID#: NMD000333211

Dear Mr. Keiling,

In accordance with the regulation established under 20.4.1.800 NMAC and 40CFR268.7 (e) for excavated petroleum contaminated soils, Western Refining-Southwest (Gallup Refinery) is requesting a "Contained-In" Determination for Petroleum Contaminated Soil from an overflow of the New API Separator (NPAIS) that occurred on June 10, 2009 due to an excessive rain event. Western Refining is also graciously asking for the Agency to provide an expeditious ruling on this determination if at all possible based on the supplied information.

On Wednesday, June 10, 2009 at approximately 0230 hrs, Western Refining-Southwest (Gallup Refinery) had a moderate rain event due to storms passing through the area. The new API began overflowing from the top onto the ground. At the time, only the West bay of the New API (NAPI) was operational because the east Bay was down for repairs. An above ground Baker Frac Tank located in the vicinity of or near the new API is used for overflow during upset or excessive rain conditions. Oily water from Process Sewers comingles with stormwater from area slabs flow directly to the new APIS. Under normal conditions when both bays are operational, the API can handle such an event. However, during this rain event, the API began to fill to an overflow condition because the East Bay was down for repairs. A small portion began to seep out of the top of the API as well, primarily water. Most of API overflow went along the backside of the API toward and slightly past the Baker Tank. (Refer to API and Lagoon Diagram and API Area Enlarged Area Diagram) The overflow from the Baker Tank was all contained in a berm surrounding the tank. There was not any oil or oily sheen observed to be in the area where the API overflowed from its top or in the Frac Tank containment berm. It continued raining from about 0430 hrs to 0630 hrs (about 1 ½ to 2 hrs). The

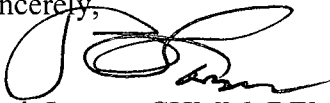
total amount of rainfall was about 0.76 inches during this time frame. At approximately 0500 hrs on Wednesday, June 10, 2009, the API (Off-site) Relief Supervisor notified Facility Management personnel. The Environmental Department was notified at approximately 0524 hrs. Environmental personnel arrived at the facility at approximately 0609 hrs, June 10, 2009. A site determination and evaluation was conducted immediately. Assessment and cleanup operations were immediately initiated by Maintenance and Contract personnel.

Cleanup operations were initiated. An Outside Contract Vacuum Truck Service (Veolia Environmental Services) was deployed to the facility to begin vacuuming up any liquids from the API overflow areas. After the vacuum operation concluded, Veolia removed approximately 31,700 gallons (754.76 bbls) of oily/water mixture. The amount of oil recovered from this operation was calculated to be approximately 11.79 gallons (0.28 bbls) based on information supplied by Veolia and best engineering methodology. Maintenance and Contract personnel began removing or remediating in and around the API and associated areas by removing approximately 1 to 2 inches contaminated top soils, any contaminated vegetation, and rock with a back-hoe or shovels. Cleanup crews removed soils along the backside of API extending north alongside the Baker Frac Tank as well as removing material where the API flowed over the road depression to Aeration Lagoon #1. Also, a cleanup crew was deployed to remove contaminated soil within the Baker Frac Tank containment dike area. Remedial activities terminated on or about June 24, 2009. After completion of remedial activities, a composite sample of the excavated material was collected by the Environmental Department, and submitted to Hall Environmental Laboratories for analysis. The sample was submitted to Hall Laboratory to be analyzed for the following parameters: RCI, TCLP Metals/1311, TCLP Voas/1311, Hexavalent Chromium (Cr+6), TCLP Semi-voas/1311, and Total Petroleum Hydrocarbon (TPH). The analysis from Hall Environmental Laboratory (date of collection: 6/25/2009) for these parameters indicated non-hazardous for all parameters. (Refer to API Overflow Sampling Analysis) Under normal conditions the API overflow material normally would be declared as a hazardous waste (F037/F038) and properly disposed accordingly; however, based on the analytical data and the small quantity of material generated, Western Refining (Southwest) is thereby asking from the New Mexico Environmental Department- Hazardous Waste Bureau for a "Request for Contained-in Determination for Petroleum Contaminated Soils from the API Overflow of June 10, 2009" in order to allow proper off-site disposal of this material as a non-hazardous waste stream. (Reference to 20.4.1.800 NMED and 40CFR268.7 (e)) The quantity excavated has been estimated to be approximately 20 to 30 yd³ (cubic yards) or (1 to 1 ½ roll-off boxes). (Refer to API & Aeration Lagoon Area and API Area Enlarged Area Diagrams)

All remedial activities and modifications to API and surrounding areas have been completed. A complete description of the overflow will be described in the following inclusions. Please find included a copy of the OCD "Release Notification and Corrective Action Forms (C-141)(Initial and Final) Reports, the API & Aeration Lagoon Area Diagram, the API Area Enlarged Diagram, the NMED Correspondence (e-mail) of June 22, 2009, and API Sample Analysis from Hall Environmental Laboratories, June 25, 2009.

Once again, Western Refining is graciously asking for the Agency to provide an expeditious ruling on this determination if at all possible based on the supplied information. If you require additional information, please contact me at (505) 722-0258.

Sincerely,



Beck Larsen, CHMM, REM
Environmental Engineer
Western Refining-Southwest (Gallup Refinery)

Enc: API & Aeration Lagoon Area Diagram
API Area Enlarged Diagram
NMED Correspondence (e-mail) of June 22, 2009
OCD (Release Notification and Corrective Action, C-141 (Initial) Report
OCD (Release Notification and Corrective Action, C-141 (Final) Report
API Overflow Sampling Analysis (Hall Environmental Laboratories), 6/25/2009

Cc: Ms Hope Monzeglio, New Mexico Environmental Department- Hazardous Waste Bureau
Mr. Carl J. Chavez, New Mexico Oil Conservation Division (NMOCD)
Mr. Mark Turri, Western Refining (Southwest), Refinery Manager
Mr. Ed Riege, Western Refining (Southwest), Environmental Manager
File

Larsen, Thurman

From: Monzeglio, Hope, NMENV [hope.monzeglio@state.nm.us]
Sent: Monday, June 22, 2009 9:18 AM
To: Larsen, Thurman; Riege, Ed
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; Dougherty.Joel@epamail.epa.gov
Subject: RE: API separator overflows

I spoke with Beck this morning and there was a miscommunication on my part; there was only one API separator overflow that occurred on June 10th. An overflow did not occur on the 16. Beck with still complete a write up on the event. Let me know if anyone has questions.

Thanks
Hope

From: Monzeglio, Hope, NMENV
Sent: Thursday, June 18, 2009 9:53 AM
To: 'Thurman B. Larsen'; 'Riege, Ed'
Cc: Cobrain, Dave, NMENV; Chavez, Carl J, EMNRD; 'Dougherty.Joel@epamail.epa.gov'
Subject: API separator overflows

Beck

For the API separator overflows that occurred on June 10 and June 16, 2009, please send NMED a letter that describes the sources of the overflows, where the discharges went, identify the reasons for the overflows (why are the overflows occurring during rain events) and describe Western's remedial actions to cleanup the overflows (include actions to be taken to prevent this from happening in the future). The letter must have an attached site plan that shows the source of the overflows and where the discharges went. Please have this information to NMED on or before July 27, 2009.

Let me know if you have additional questions.

Hope

Hope Monzeglio
Environmental Specialist
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505
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Websites:
New Mexico Environment Department
Hazardous Waste Bureau

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section 28	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

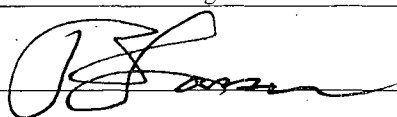
Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. During this storm event, the API overflowed. A description of the incident was previously provided to the Agency on the initial C-141.

Describe Area Affected and Cleanup Action Taken.*

Cleanup efforts began on June 10, 2009. Maintenance and Contract personnel began cleaning up the any aqueous/oily portion of overflow contamination and any contaminated soil and rock debris surrounding the API area. Personnel conduct cleanup of areas such as depressions or other conveyances adjacent to the API area that any contamination may or did spread. After immediate cleanup efforts were completed, All contaminated material were put into a roll-off box to be tested (analyzed by an outside lab), prior to shipment off site for disposal to an approved facility. Contract personnel delivered and spread new gravel and rock material around the API area. Final cleanup of this area was completed on or about June 26, 2009.

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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com		Conditions of Approval:	
Date: 7/21/2009 Phone: (505) 722-0258		Attached <input type="checkbox"/>	

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OPERATOR

☒ Initial Report ☐ Final Report

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Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 28	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35° 29'030'' Longitude 108° 24'040''

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

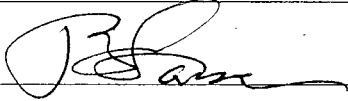
Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. As soon as it started raining, the Wastewater Operators and Supervisors started pumping water from new API to the old API in order to reduce the level in the new API. They also started up a "yellow" trash pump in front of the new API going to the old API.. The Baker Tank started filling up until it overflowed. The API Operators blocked in the Baker Tank At approximately 0330 hrs, the new API began overflowing from the top onto the ground. Only the West Bay is operational since the East Bay of the API is down for repairs. The overflow lasted for about 30 minutes. However, the overflow from the Baker Tank was contained in the berm area surrounding the tank. At approximately 0430 hrs, the old API began draining into Aeration Lagoon #1 due to excessive stormwater, thus by-passing the Benzene Strippers. It continued raining from about 0430 to 0630 hrs. (about 1 1/2 to 2 hrs). At 0630 hrs, flow stopped from the old API in to Lagoon #1. The amount of rainfall was about 0.76 inches during this time period. During this rain event, the old API sump was being pumped continuously to Tank (T-107) in order to control the level in the old API. At approximately 0500 hrs on Wednesday, June 10, 2009, the Process Shift Superintendent, initially notified Richard Schmitt that the API was overflowing. Then, Mr. Schmitt notified Mr. Mark Turri, Joel Quinones, James Geer, and the Environmental Department about the incident. The Environmental Department was officially notified on Wednesday, 6/10/2009 at approximately 0524 hrs. Environmental personnel arrived at 0609 hrs, Wednesday, June 10, 2009. A site determination and evaluation proceeded during daylight hours. The actual quantity of oil released is difficult to measure with any accuracy. Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. Final quantification was determined to be approximately <2.0 bbls of oil discharged, a crude estimation. All recoverable liquid in areas (oil/water mixtures) around the API and Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API.

Describe Area Affected and Cleanup Action Taken.*

Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. All recoverable liquids in areas (oil/water mixture).around the API and the Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API. Soil and area remediation around API and Baker Tanks is in progress.

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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/22/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

COVER LETTER

Friday, July 10, 2009

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-0258

FAX (505) 722-0210

RE: API Overflow Sampling

Order No.: 0906532

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 6/25/2009 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: 10-Jul-09

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0906532
Project: API Overflow Sampling
Lab ID: 0906532-01

Client Sample ID: API Overflow
Collection Date: 6/24/2009 10:30:00 AM
Date Received: 6/25/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
MERCURY, TCLP Analyst: MMS						
Mercury	ND	0.020		mg/L	1	6/26/2009 5:50:15 PM
EPA METHOD 6010B: TCLP METALS Analyst: SNV						
Arsenic	ND	5.0		mg/L	1	7/10/2009 8:06:43 AM
Barium	ND	100		mg/L	1	7/10/2009 7:09:28 AM
Cadmium	ND	1.0		mg/L	1	7/10/2009 7:09:28 AM
Chromium	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
Lead	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
Selenium	ND	1.0		mg/L	1	7/10/2009 7:09:28 AM
Silver	ND	5.0		mg/L	1	7/10/2009 7:09:28 AM
EPA METHOD 8270C TCLP Analyst: JDC						
2,4-Dinitrotoluene	ND	0.13		mg/L	1	6/29/2009
Hexachlorobenzene	ND	0.13		mg/L	1	6/29/2009
Hexachlorobutadiene	ND	0.50		mg/L	1	6/29/2009
Hexachloroethane	ND	3.0		mg/L	1	6/29/2009
Nitrobenzene	ND	2.0		mg/L	1	6/29/2009
Pentachlorophenol	ND	100		mg/L	1	6/29/2009
Pyridine	ND	5.0		mg/L	1	6/29/2009
2,4,5-Trichlorophenol	ND	400		mg/L	1	6/29/2009
2,4,6-Trichlorophenol	ND	2.0		mg/L	1	6/29/2009
Cresols, Total	ND	200		mg/L	1	6/29/2009
Surr: 2,4,6-Tribromophenol	73.8	20.9-128		%REC	1	6/29/2009
Surr: 2-Fluorobiphenyl	60.4	18.3-119		%REC	1	6/29/2009
Surr: 2-Fluorophenol	52.0	16.6-101		%REC	1	6/29/2009
Surr: 4-Terphenyl-d14	65.0	32.3-135		%REC	1	6/29/2009
Surr: Nitrobenzene-d5	65.8	22.6-117		%REC	1	6/29/2009
Surr: Phenol-d5	41.0	8-77.9		%REC	1	6/29/2009
VOLATILES BY 8260B/1311 Analyst: NSB						
Benzene	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
2-Butanone	ND	10		mg/L	1	7/4/2009 5:24:59 PM
Carbon Tetrachloride	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Chlorobenzene	ND	100		mg/L	1	7/4/2009 5:24:59 PM
Chloroform	ND	6.0		mg/L	1	7/4/2009 5:24:59 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	7/4/2009 5:24:59 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	7/4/2009 5:24:59 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	7/4/2009 5:24:59 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	7/4/2009 5:24:59 PM
Vinyl chloride	ND	0.20		mg/L	1	7/4/2009 5:24:59 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: 10-Jul-09

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0906532
Project: API Overflow Sampling
Lab ID: 0906532-01

Client Sample ID: API Overflow
Collection Date: 6/24/2009 10:30:00 AM
Date Received: 6/25/2009
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES BY 8260B/1311						Analyst: NSB
Surr: 1,2-Dichloroethane-d4	100	69.9-130		%REC	1	7/4/2009 5:24:59 PM
Surr: 4-Bromofluorobenzene	98.2	71.2-123		%REC	1	7/4/2009 5:24:59 PM
Surr: Dibromofluoromethane	102	73.9-134		%REC	1	7/4/2009 5:24:59 PM
Surr: Toluene-d8	98.7	81.9-122		%REC	1	7/4/2009 5:24:59 PM
EPA METHOD 418.1: TPH						Analyst: LRW
Petroleum Hydrocarbons, TR	3900	400		mg/Kg	20	6/26/2009

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
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ENVIRONMENTAL
SCIENCE CORP.

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

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 29, 2009

Anne Thorne
Hall Environmental Analysis Laborat
4901 Hawkins NE
Albuquerque, NM 87109

Date Received : June 26, 2009
Description : 0906532
Sample ID : API OVERFLOW
Collected By :
Collection Date : 06/24/09 10:30

ESC Sample # : L409538-01

Site ID :

Project # : 0906532

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Corrosivity	Non-Corrosive			9040C	06/27/09	1
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	06/27/09	1
Ignitability	See Footnote		Deg. F	D93/1010A	06/29/09	1
Reactive CN (SW846 7.3.3.2)	BDL	0.125	mg/kg	9012B	06/29/09	1
Reactive Sulf. (SW846 7.3.4.1)	BDL	25.	mg/kg	9034/9030B	06/28/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/29/09 16:27 Printed: 06/29/09 16:27
L409538-01 (IGNITABILITY) - Did Not Ignite @ 170F

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L409538-01	WG428532	SAMP	Chromium, Hexavalent	R795546	J6



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Hall Environmental Analysis Laboratory
Anne Thorne
4901 Hawkins NE

Quality Assurance Report
Level II

Albuquerque, NM 87109

L409538

June 29, 2009

Analyte	Result	Laboratory Blank		Limit	Batch	Date Analyzed
		Units	% Rec			
Chromium, Hexavalent	< 2	mg/kg			WG428532	06/27/09 13:26
Corrosivity	2.80				WG428517	06/27/09 11:10
Reactive Sulf. (SW846 7.3.4.1)	< 25	mg/kg			WG428681	06/28/09 17:00

Analyte	Units	Result	Duplicate		RPD	Limit	Ref Samp	Batch
			Duplicate	% Rec				
Chromium, Hexavalent	mg/kg	0.00	0.00	0.00	0.00	20	L409428-01	WG428532
Corrosivity		0.00	0.00	0.00	0.00	10	L409010-01	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	0.00	0.00	0.00	0.00	20	L409538-01	WG428681
Reactive CN (SW846 7.3.3.2)	mg/kg	0.00	0.00	0.00	0.00	20	L409538-01	WG428683
Ignitability	Deg. F	0.00	0.00	0.00	0.00	10	L409538-01	WG428687

Analyte	Units	Laboratory Control Sample		% Rec	Limit	Batch
		Known Val	Result			
Chromium, Hexavalent	mg/kg	102	82.5	80.9	50-143	WG428532
Corrosivity		9.04	8.90	98.5	97.4-102.6	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	100	82.0	82.0	70-130	WG428681
Ignitability	Deg. F	82	82.0	100	96-104	WG428687

Analyte	Units	Laboratory Control Sample Duplicate		Limit	RPD	Limit	Batch
		Result	% Rec				
Chromium, Hexavalent	mg/kg	81.9	82.5	80.0	50-143	0.730	WG428532
Corrosivity		8.90	8.90	98.0	97.4-102.6	0.00	WG428517
Reactive Sulf. (SW846 7.3.4.1)	mg/kg	82.0	82.0	82.0	70-130	0.00	WG428681
Ignitability	Deg. F	82.0	82.0	100	96-104	0.00	WG428687

Analyte	Units	Matrix Spike		% Rec	Limit	Ref Samp	Batch
		MS Res	Ref Res				
Chromium, Hexavalent	mg/kg	13.7	0.00	20	68.5	80-120	L409538-01 WG428532

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



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Anne Thorne
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Quality Assurance Report
Level II

Albuquerque, NM 87109

L409538

June 29, 2009

Analyte	Units	MSD	Matrix Spike Duplicate		Limit	RPD	Limit Ref Samp	Batch
			Ref	%Rec				
Chromium, Hexavalent	mg/kg	14.2	13.7	71	80-120	3-58	20 L409538-01	WG428532

Batch number / Run number / Sample number cross reference

WG428532: R795546: L409538-01
WG428517: R796588: L409538-01
WG428681: R796589: L409538-01
WG428683: R796746: L409538-01
WG428687: R797027: L409538-01

* * Calculations are performed prior to rounding of reported values

* Performance of this Analyte is outside of established criteria.

For additional information, please see Attachment A 'List of Analytes with QC Qualifiers.'

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 418.1: TPH									
Sample ID: MB-19472		MBLK							
Petroleum Hydrocarbons, TR	ND	mg/Kg	20						
Sample ID: LCS-19472		LCS							
Petroleum Hydrocarbons, TR	85.50	mg/Kg	20	85.5	82	114			
Sample ID: LCSD-19472		LCSD							
Petroleum Hydrocarbons, TR	95.42	mg/Kg	20	95.4	82	114	11.0	20	

Method: Volatiles by 8260B/1311

Sample ID: mb-19468		MBLK							
Benzene	ND	mg/L	0.50						
2-Butanone	ND	mg/L	10						
Carbon Tetrachloride	ND	mg/L	0.50						
Chlorobenzene	ND	mg/L	100						
Chloroform	ND	mg/L	6.0						
1,4-Dichlorobenzene	ND	mg/L	7.5						
1,2-Dichloroethane (EDC)	ND	mg/L	0.50						
1,1-Dichloroethene	ND	mg/L	0.70						
Hexachlorobutadiene	ND	mg/L	0.50						
Tetrachloroethene (PCE)	ND	mg/L	0.70						
Trichloroethene (TCE)	ND	mg/L	0.50						
Vinyl chloride	ND	mg/L	0.20						
Sample ID: lcs-19468		LCS							
Benzene	0.1367	mg/L	0.010	34.2	51.1	171			S
Chlorobenzene	0.06556	mg/L	0.010	16.4	36.1	191			S
1,1-Dichloroethene	0.09015	mg/L	0.010	22.5	49.1	162			S
Trichloroethene (TCE)	0.05354	mg/L	0.010	13.4	41.2	166			S

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, Gallup
 Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8270C TCLP

Sample ID: mb-19499 MBLK Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	ND	mg/L	0.13						
Hexachlorobenzene	ND	mg/L	0.13						
Hexachlorobutadiene	ND	mg/L	0.50						
Hexachloroethane	ND	mg/L	3.0						
Nitrobenzene	ND	mg/L	2.0						
Pentachlorophenol	ND	mg/L	100						
Pyridine	ND	mg/L	5.0						
2,4,5-Trichlorophenol	ND	mg/L	400						
2,4,6-Trichlorophenol	ND	mg/L	2.0						
Cresols, Total	ND	mg/L	200						

Sample ID: lcs-19499 LCS Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	0.07790	mg/L	0.010	77.9	24.8	102			
Hexachlorobenzene	0.05940	mg/L	0.010	59.4	20.2	72.5			
Hexachlorobutadiene	0.06098	mg/L	0.010	61.0	20.1	100			
Hexachloroethane	0.06236	mg/L	0.010	62.4	29.2	95			
Nitrobenzene	0.07112	mg/L	0.010	71.1	34.4	94.7			
Pentachlorophenol	0.05852	mg/L	0.010	58.5	8.63	96.2			
Pyridine	0.04090	mg/L	0.010	40.9	12.5	64.7			
2,4,5-Trichlorophenol	0.06626	mg/L	0.010	66.3	16.7	98			
2,4,6-Trichlorophenol	0.05820	mg/L	0.010	58.2	20.9	93.5			
Cresols, Total	0.1652	mg/L	0.010	55.1	12.6	88.1			

Sample ID: lcsd-19499 LCSD Batch ID: 19499 Analysis Date: 6/29/2009

2,4-Dinitrotoluene	0.07390	mg/L	0.010	73.9	24.8	102	5.27	27.8	
Hexachlorobenzene	0.05446	mg/L	0.010	54.5	20.2	72.5	8.68	36.1	
Hexachlorobutadiene	0.05928	mg/L	0.010	59.3	20.1	100	2.83	39.1	
Hexachloroethane	0.05714	mg/L	0.010	57.1	29.2	95	8.74	57.2	
Nitrobenzene	0.06044	mg/L	0.010	60.4	34.4	94.7	16.2	44.7	
Pentachlorophenol	0.05836	mg/L	0.010	58.4	8.63	96.2	0.274	24.7	
Pyridine	0.03872	mg/L	0.010	38.7	12.5	64.7	5.48	77.5	
2,4,5-Trichlorophenol	0.06422	mg/L	0.010	64.2	16.7	98	3.13	34.6	
2,4,6-Trichlorophenol	0.05684	mg/L	0.010	56.8	20.9	93.5	2.36	32.8	
Cresols, Total	0.1444	mg/L	0.010	48.1	12.6	88.1	13.4	46.3	

Method: MERCURY, TCLP

Sample ID: MB-19479 MBLK Batch ID: 19479 Analysis Date: 6/26/2009 5:36:11 PM

Mercury	ND	mg/L	0.020						
---------	----	------	-------	--	--	--	--	--	--

Sample ID: LCS-19479 LCS Batch ID: 19479 Analysis Date: 6/26/2009 5:37:54 PM

Mercury	ND	mg/L	0.020	97.0	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

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
 Project: API Overflow Sampling

Work Order: 0906532

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 6010B: TCLP Metals

Sample ID: 0906532-01AMSD		MSD			Batch ID: 19523	Analysis Date: 7/10/2009 7:14:37 AM
Cadmium	ND	mg/L	1.0	101	75 125	0 20
Chromium	ND	mg/L	5.0	92.6	75 125	0 20
Lead	ND	mg/L	5.0	89.9	75 125	0 20
Selenium	ND	mg/L	1.0	111	75 125	0 20
Silver	ND	mg/L	5.0	104	75 125	0 20
Sample ID: 0906532-01AMSD		MSD			Batch ID: 19523	Analysis Date: 7/10/2009 7:22:20 AM
Barium	ND	mg/L	100	97.5	75 125	0 20
Sample ID: 0906532-01AMSD		MSD			Batch ID: 19523	Analysis Date: 7/10/2009 8:13:31 AM
Arsenic	ND	mg/L	5.0	99.7	75 125	0 20
Sample ID: MB-19523		MBLK			Batch ID: 19523	Analysis Date: 7/10/2009 7:02:39 AM
Arsenic	ND	mg/L	5.0			
Barium	ND	mg/L	100			
Cadmium	ND	mg/L	1.0			
Chromium	ND	mg/L	5.0			
Lead	ND	mg/L	5.0			
Selenium	ND	mg/L	1.0			
Silver	ND	mg/L	5.0			
Sample ID: MB-19523		MBLK			Batch ID: 19523	Analysis Date: 7/10/2009 8:01:39 AM
Arsenic	ND	mg/L	5.0			
Sample ID: LCS-19523		LCS			Batch ID: 19523	Analysis Date: 7/10/2009 7:06:54 AM
Arsenic	ND	mg/L	5.0	110	80 120	
Barium	ND	mg/L	100	99.1	80 120	
Cadmium	ND	mg/L	1.0	106	80 120	
Chromium	ND	mg/L	5.0	99.8	80 120	
Lead	ND	mg/L	5.0	97.0	80 120	
Selenium	ND	mg/L	1.0	107	80 120	
Silver	ND	mg/L	5.0	104	80 120	
Sample ID: LCS-19523		LCS			Batch ID: 19523	Analysis Date: 7/10/2009 8:04:10 AM
Arsenic	ND	mg/L	5.0	114	80 120	
Sample ID: 0906532-01AMS		MS			Batch ID: 19523	Analysis Date: 7/10/2009 7:12:04 AM
Cadmium	ND	mg/L	1.0	105	75 125	
Chromium	ND	mg/L	5.0	95.9	75 125	
Lead	ND	mg/L	5.0	93.6	75 125	
Selenium	ND	mg/L	1.0	113	75 125	
Silver	ND	mg/L	5.0	105	75 125	
Sample ID: 0906532-01AMS		MS			Batch ID: 19523	Analysis Date: 7/10/2009 7:19:45 AM
Barium	ND	mg/L	100	103	75 125	
Sample ID: 0906532-01AMS		MS			Batch ID: 19523	Analysis Date: 7/10/2009 8:09:15 AM
Arsenic	ND	mg/L	5.0	98.6	75 125	

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 GALLU

Date Received:

6/25/2009

Work Order Number 0906532

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 ☒

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

3.1°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

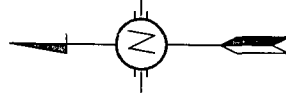
Contacted by:

Regarding:

Comments:

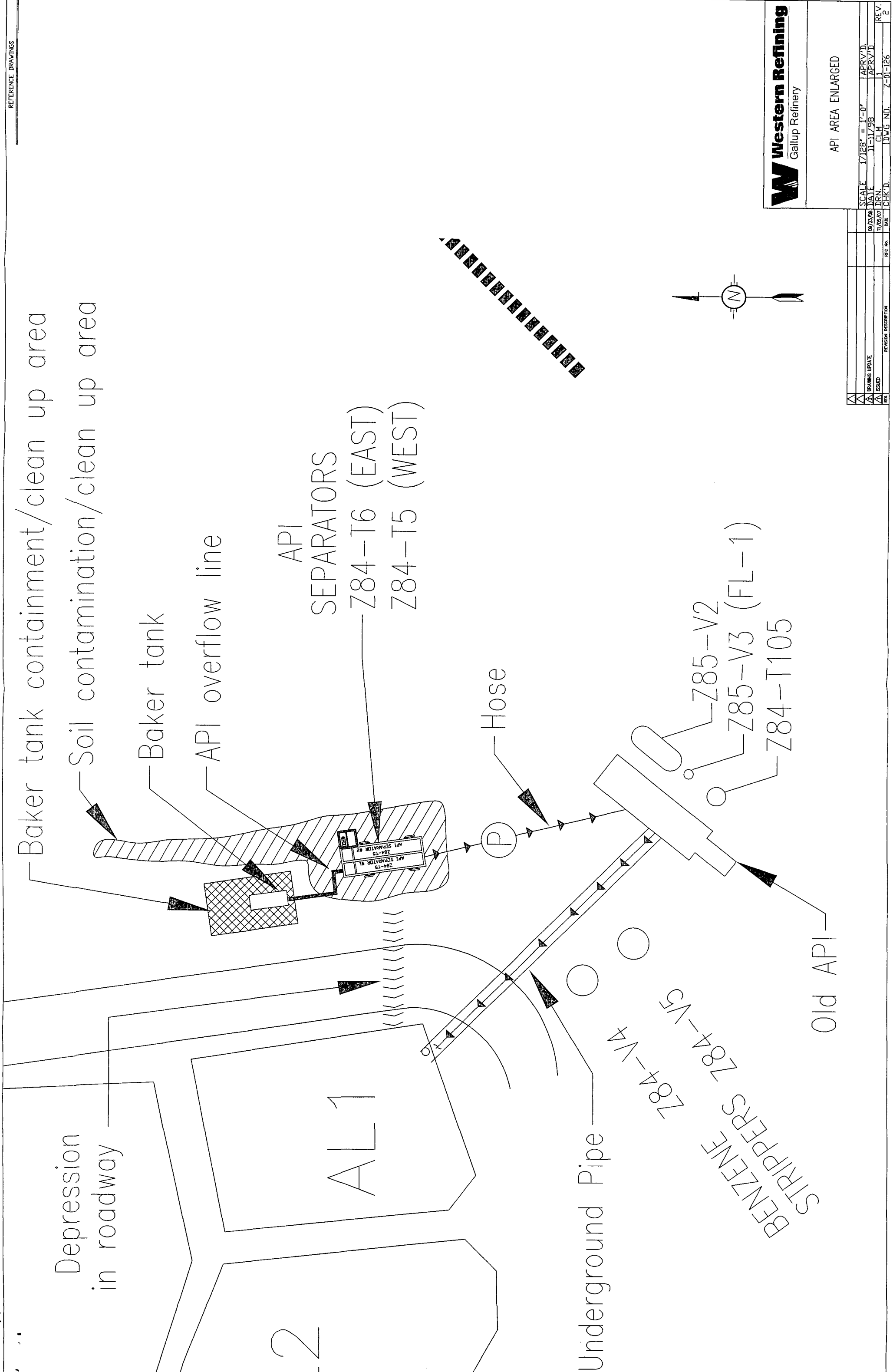
Corrective Action

REFERENCE DRAWINGS



Western Refining
Gallup Refinery

API & AERATION LAGOON AREA



Western Refining Gallup Refinery		API AREA ENLARGED	
SCALE	1/128" = 1'-0"	APPROV'D.	APPROV'D.
DATE	11-11/98	CLM	CLM
CHK'D.	11/25/01	DATE	11/25/01
REV.	1	REV.	2

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Monday, June 22, 2009 10:28 AM
To: Monzeglio, Hope, NMENV
Cc: Chavez, Carl J, EMNRD
Subject: Initial C-141 Form- API Overflow on June 10, 2009
Attachments: API- C141 RPT FORM061009.pdf

Hope and Carl,

The attached is a copy of the Initial (C-141 Form) for your records. I will be following up the initial with a Final (C-141 Report) and a summary letter that will be due on July 27, 2009 as previously discussed. Hope, I also will be faxing you a copy as a backup for your records as well.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company- Gallup Refinery
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749
thurman.larsen@wnr.com

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State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
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side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

Type of Release API Overflow	Volume of Release < 2.0 bbls (oil)	Volume Recovered 1.3 bbls (oil) (estimated)
Source of Release API	Date and Hour of Occurrence 6/10/2009; 0500 hrs	Date and Hour of Discovery 6/10/2009; 0500
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD & NMED	
By Whom? Beck Larsen	Date and Hour 6/10/2009; 1045 hrs AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*


Describe Cause of Problem and Remedial Action Taken.*

At approximately 0230 hrs, Wednesday, June 10, 2009, a heavy rain and thunderstorms passed over the facility. As soon as it started raining, the Wastewater Operators and Supervisors started pumping water from new API to the old API in order to reduce the level in the new API. They also started up a "yellow" trash pump in front of the new API going to the old API.. The Baker Tank started filling up until it overflowed. The API Operators blocked in the Baker Tank At approximately 0330 hrs, the new API began overflowing from the top onto the ground. Only the West Bay is operational since the East Bay of the API is down for repairs. The overflow lasted for about 30 minutes. However, the overflow from the Baker Tank was contained in the berm area surrounding the tank. At approximately 0430 hrs, the old API began draining into Aeration Lagoon #1 due to excessive stormwater, thus by-passing the Benzene Strippers. It continued raining from about 0430 to 0630 hrs. (about 1 1/2 to 2 hrs). At 0630 hrs, flow stopped from the old API in to Lagoon #1. The amount of rainfall was about 0.76 inches during this time period. During this rain event, the old API sump was being pumped continuously to Tank (T-107) in order to control the level in the old API. At approximately 0500 hrs on Wednesday, June 10, 2009, the Process Shift Superintendent, initially notified Richard Schmitt that the API was overflowing. Then, Mr. Schmitt notified Mr. Mark Turri, Joel Quinones, James Geer, and the Environmental Department about the incident. The Environmental Department was officially notified on Wednesday, 6/10/2009 at approximately 0524 hrs. Environmental personnel arrived at 0609 hrs, Wednesday, June 10, 2009. A site determination and evaluation proceeded during daylight hours. The actual quantity of oil released is difficult to measure with any accuracy. Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. Final quantification was determined to be approximately <2.0 bbls of oil discharged, a crude estimation. All recoverable liquid in areas (oil/water mixtures) around the API and Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API.

Describe Area Affected and Cleanup Action Taken.*

Once daylight arrived, assessment began. Maintenance and Offsite personnel immediately began cleanup. All recoverable liquids in areas (oil/water mixture) around the API and the Baker Tank were immediately vacuumed and brought to one of the process drains for further processing by the API. Soil and area remediation around API and Baker Tanks is in progress.

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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Beck Larsen		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Thurman.larsen@wnr.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/22/2009 Phone: (505) 722-0258			

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Jones, Brad A., EMNRD
Sent: Thursday, May 21, 2009 12:54 PM
To: Chavez, Carl J, EMNRD
Subject: FW: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)- FINAL REPORT

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Thursday, May 21, 2009 8:48 AM
To: Jones, Brad A., EMNRD
Cc: Riege, Ed
Subject: FW: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)- FINAL REPORT

Dear Mr. Jones,

The following is Report is final for the plugged line from the Pilot Travel Center that occurred on May 15, 2009. As of Tuesday afternoon, May 19, 2009, the Pilot Travel Center Line was unplugged and was routed from Pond #9 to the API and all repairs were completed as required. All flows are draining as normal. Please contact me if you have any additional questions concerning this matter at the number listed below.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749
thurman.larsen@wnr.com

From: Rajen, Gaurav
Sent: Tuesday, May 19, 2009 6:19 AM
To: Larsen, Thurman
Cc: Riege, Ed
Subject: FW: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)

Dear Beck:

I didn't have a chance to follow up on this – I was busy working on our NPDES permit.

I did check with Don Riley and he said his understanding was that there could be back-up on Pilot land; and that our second line is not ready to be brought in so we can repair the plugged line.

Best,

Raj

From: Riege, Ed
Sent: Monday, May 18, 2009 8:48 AM
To: Rajen, Gaurav
Subject: FW: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)

You may need to update this with OCD re weekend activities, since Beck is off today.

Ed Riege
Environmental Manager

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

From: Larsen, Thurman
Sent: Friday, May 15, 2009 2:41 PM
To: brad.a.jones@state.nm.us
Cc: Riege, Ed
Subject: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)

Reference: OCD Permit GW-032; Pilot Travel Center Plugged Line

Dear Mr. Jones;

A verbal attempt was made about 1:30 PM (1330 hrs) today, May 15, 2009, to contact you in regards to the Pilot Travel Center Sanitary release due to a plugged line; however, you were not available. This letter is to provide a confirmation follow-up in regards to the Pilot Travel Center Sanitary release due to a plugged line.

Pilot Sanitary liquids drain through a main four (4) inch line from the Pilot Travel Center to Western Refining facility. After reaching the Western Refining facility, the line splits into two (2) directions via two (2) four (4") valves. One valve allows liquids to go to the API Pit, the other allows liquids to go to Pond #9. A third valve in on the main line that regulates the main flow.

Pilot Contractors were attempting to trouble shoot a potential plugged sewer line. At about 1145, contractors intentionally opened a valve going to Pond #9 in order to determine to approximate location of the plugged line. Liquid flowed from this line indicating that the line from Pond #9 to the Pilot Travel Center was not plugged. This indicated that the plugged line was from the main valve to the API Pit. The Contractors contacted Western Refining personnel who told them to close this valve immediately. The time of discharge was estimated to be about 5 minutes or less. It was estimate that less than 30 gallons of water was discharged to Pond #9 during this time frame. Building and Grounds personnel added chlorination at the discharge end of the pipe going into Pond #9 in order to provide proper chlorination and to minimize any environmental effects of this release.

If you should have any questions regarding this release, please contact me at the information provided below or Mr. Ed Riege (Environmental Manager) at (505) 722-0217.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749

thurman.larsen@wnr.com

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

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company	Navajo Refining Co	Contact	Darrell Moore
Address	501 E Main Artesia NM 88211	Telephone No.	575-746-5281
Facility Name	Artesia Plant	Facility Type	Petroleum Refinery
Surface Owner	Mineral Owner	Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
-------------	---------	----------	-------	---------------	------------------	---------------	----------------	--------

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Fire	Volume of Release	NA	Volume Recovered	NA
Source of Release	AGO Pump	Date and Hour of Occurrence	5/21/09 5:30 am	Date and Hour of Discovery	5/21/09 5:30 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required				
By Whom?	If YES, To Whom?				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input type="checkbox"/> No				
If YES, Volume Impacting the Watercourse.					

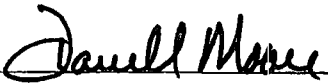
If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

AGO Pump in the South Crude Unit had a seal failure and the resulting loss of product ignited. There was a flash and then some scaffolding above the pump caught fire. It was immediately extinguished. The only damage was some minor charring of the scaffolding boards.

Describe Area Affected and Cleanup Action Taken.*

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

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Darrell Moore		Approved by District Supervisor:	
Title: Env Mgr for Water and Waste		Approval Date:	Expiration Date:
E-mail Address: Darrell.moore@hollycorp.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/21/09	Phone: 575-746-5281		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Larsen, Thurman [Thurman.Larsen@wnr.com]
Sent: Wednesday, May 27, 2009 9:43 AM
To: Jones, Brad A., EMNRD
Cc: Cobrain, Dave, NMENV; Connolly, Stephen, NMENV; Chavez, Carl J, EMNRD; Riege, Ed; Monzeglio, Hope, NMENV
Subject: T-108 SPILL FINAL NOTIFICATION
Attachments: T-108 Final Notification.pdf

Dear Mr. Jones,

The following is the Final Notification to OCD and NMED for the Tank 108 Spill that occurred on May 23, 2009. If you should require additional information on this matter, please feel free to contact me at the number listed below.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749
thurman.larsen@wnr.com

From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Tuesday, May 26, 2009 4:15 PM
To: Larsen, Thurman
Cc: Cobrain, Dave, NMENV; Connolly, Stephen, NMENV; Chavez, Carl J, EMNRD; Jones, Brad A., EMNRD; Riege, Ed
Subject: May 23 spill

Beck

Steve Connolly informed me about the spill at Gallup on May 23 from Tank 108. Make sure all contaminated soil is cleaned up from within the berm. I assume you have contacted OCD and will be filling out a C-141 form. Please make sure I am cc on the C-141 form. Feel free to contact me with any questions.

Thanks

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

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Western Refining-Southwest	Contact Beck Larsen
Address I-40/Exit 39, Jamestown, NM 87347	Telephone No.(505) 722-0258
Facility Name Gallup Refinery	Facility Type Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

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

Latitude 35° 29'030" Longitude 108° 24'040"

NATURE OF RELEASE

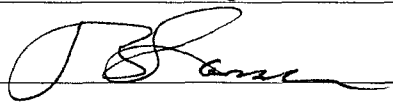
Type of Release Spill (T-108 Overfill)	Volume of Release 10 bbls	Volume Recovered 6-8 bbls
Source of Release T-108	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? OCD, NMED	
By Whom? Beck Larsen	Date and Hour 5/23/2009; 1500 hrs	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* No

Describe Cause of Problem and Remedial Action Taken.* At approximately 1500 hrs (5/23/2009), a Maintenance employee was making rounds and saw T-108 (Alkylation Tank) running over. The on-site Fire Department was immediately notified. The rundown was immediately switched out of the tank. Safety and the Off-Site Manager was notified of the incident. The Alkylation Tank (T-108) is located within a Tank Farm Berm. The on-site Fire Department personnel put foam over the affected area as a precaution. Veolia Environmental Vacuum Services was called out to cleanup the material. The estimated recovery was approximately 6 to 8 bbls.

Describe Area Affected and Cleanup Action Taken.* The Alkylation Tank (T-108) is located within a Tank Farm Berm area. The affected area was approximately 225 sq ft. Cleanup operations of the soil are underway for analytical testing and shipment off-site for disposal.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Beck Larsen	Approved by District Supervisor:		
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Thurman.larsen@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5/28/2009	Phone: (505) 722-0258		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: VonGonten, Glenn, EMNRD
Sent: Tuesday, May 26, 2009 9:59 AM
To: Chavez, Carl J, EMNRD
Subject: FW: SPILL NOTIFICATION- T-108 (Alkylate Spill) for May 23, 2009

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Tuesday, May 26, 2009 8:52 AM
To: VonGonten, Glenn, EMNRD
Cc: Jones, Brad A., EMNRD; Riege, Ed
Subject: SPILL NOTIFICATION- T-108 (Alkylate Spill) for May 23, 2009

Dear Mr. Von Gonten,

This e-mail confirms a formal initial spill notification as required by OCD in regards to an incident that occurred over the weekend. An attempt was made to both Mr. Jones and you at approximately, 0815 hours, today, May 26, 2009. Also, on May 26, 2009, a verbal attempt to notify Mr. Steve Conley (NMED, HWB) was done as required. The following is a summary of the spill event.

Date of Incident: May 23, 2009
Time of Incident: ~ 1500 hrs
Product: Alkylate
Quantity: 6 to 12 bbls (estimated)
Containment: Yes

At approximately 1500 hrs on Saturday, May 23, 2009, T-108 overflowed containing Alkylate. The quantity that spilled on to the ground was about 6 to 12 bbls as estimated. The material was in a contained area of the tankfarm. All liquid was immediately vacuumed up. Soil cleanup is underway. If you require additional information, please contact me at the following:

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company
Route 3, Box 7
Gallup, NM 87301
Office: (505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749
thurman.larsen@wnr.com

This inbound email has been scanned by the MessageLabs Email Security System.

Chavez, Carl J, EMNRD

From: Jones, Brad A., EMNRD
Sent: Monday, May 18, 2009 7:25 AM
To: Chavez, Carl J, EMNRD
Subject: FW: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)

From: Larsen, Thurman [mailto:Thurman.Larsen@wnr.com]
Sent: Friday, May 15, 2009 2:41 PM
To: Jones, Brad A., EMNRD
Cc: Riege, Ed
Subject: Pilot Trave Center Sanitary Plugged Line NOTIFICATION (Follow-up)

Reference: OCD Permit GW-032; Pilot Travel Center Plugged Line

Dear Mr. Jones;

A verbal attempt was made about 1:30 PM (1330 hrs) today, May 15, 2009, to contact you in regards to the Pilot Travel Center Sanitary release due to a plugged line; however, you were not available. This letter is to provide a confirmation follow-up in regards to the Pilot Travel Center Sanitary release due to a plugged line.

Pilot Sanitary liquids drain through a main four (4) inch line from the Pilot Travel Center to Western Refining facility. After reaching the Western Refining facility, the line splits into two (2) directions via two (2) four (4") valves. One valve allows liquids to go to the API Pit, the other allows liquids to go to Pond #9. A third valve in on the main line that regulates the main flow.

Pilot Contractors were attempting to trouble shoot a potential plugged sewer line. At about 1145, contractors intentionally opened a valve going to Pond #9 in order to determine to approximate location of the plugged line. Liquid flowed from this line indicating that the line from Pond #9 to the Pilot Travel Center was not plugged. This indicated that the plugged line was from the main valve to the API Pit. The Contractors contacted Western Refining personnel who told them to close this valve immediately. The time of discharge was estimated to be about 5 minutes or less. It was estimate that less than 30 gallons of water was discharged to Pond #9 during this time frame. Building and Grounds personnel added chlorination at the discharge end of the pipe going into Pond #9 in order to provide proper chlorination and to minimize any environmental effects of this release.

If you should have any questions regarding this release, please contact me at the information provided below or Mr. Ed Riege (Environmental Manager) at (505) 722-0217.

Sincerely,

Beck Larsen; CHMM, REM, RPG
Environmental Engineer

Western Refining Company
Route 3, Box 7
Gallup, NM 87301
Office:(505) 722-0258
Fax: (505) 722-0210
Office Cell: (505) 862-1749
thurman.larsen@wnr.com

This inbound email has been scanned by the MessageLabs Email Security System.



Gannett Fleming

Gannett Fleming West, Inc.

2155 Louisiana Boulevard, NE
Suite 7000
Albuquerque, New Mexico
87110

Office (505) 265-8468
Facsimile (505) 881-2513

April 16, 2009

Mr. Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
2009 APR 20 PM 12 43

RE: Facility #5081434 Product Line Site Assessment Report

Dear Mr. Chavez

At the request of Chevron EMC, Gannett Fleming West, Inc. (GFW) is submitting the enclosed site assessment report for the Tychron release at the Gallup Refinery. It is our understanding that Chevron filed the appropriate C-141 Form for the release, and the purpose of our site investigation was to assess the need for additional remedial action at the site of the release. Based on the results of our site assessment, GFW requests a finding of No Further Action on behalf of Chevron EMC.

Should you have any questions or wish to discuss the contents of this report, you may contact me at (505) 265-8468 or Mr. David Gardner of Chevron EMC at (713) 432-2632.

Sincerely,
GANNETT FLEMING WEST, INC.

Mike E. Brazie, P.E.
Vice President

cc: David Gardner, Chevron EMC
Ed Riege, Western Refining Co.
Ron Weaver, Western Albuquerque Terminal

Technical Report

Facility # 5081434
Product Line Site Assessment

Gannett Fleming West, Inc. Project No. 50206

Submitted to
Chevron EMC
4800 Fournace Place
Bellaire, Texas 77401

November 7, 2008

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APPENDIX A – Laboratory Report

APPENDIX B – Site Photographs

Acronyms

bb1	barrels
cm/s	centimeters per second
DI	deionized
EDB	ethylene dibromide
EDC	1,2-dichloroethane
ft	feet
ft/ft	feet per foot
gpm	gallons per minute
GRO/DRO	gasoline range organics / diesel range organics
mg/kg	milligrams per kilogram
MEK	methyl ethyl ketone
mmhos/cm	micromhos per centimeters
MTBE	methyl tertiary butyl ether
NFA	No Further Action
OSE	Office of the State Engineer
ppm	parts per million
TPH	Total Petroleum Hydrocarbons
TMB	trimethyl benzenes
VOC	volatile organic compounds

1.0 BACKGROUND

Chevron Products Company has a product additive (Techron) tank and product line at the Western Refining Company's Ciniza Refinery. The refinery is located on the north side of Interstate 40, approximately 17 miles east of Gallup, New Mexico (Figure 1). Within the refinery, the product tank is located just west of the truck loading rack (Figure 2). On or about August 6, 2008, Chevron Products Company discovered a possible product release of less than 5 barrels (bbl) based on an inventory discrepancy and a verbal report from operators that the product was observed coming from a nearby electrical junction box.

Site Description

The 10,000 gallon Techron tank is located at the west side of the truck loading rack at the Ciniza Refinery. The additive is contained within a steel above ground tank which is within a concrete secondary containment area. The additive is delivered to the loading rack by means of an underground product line that runs from the additive tank to the rack. Between the tank and the rack is an asphalt access road, under which the product line is located. This system was reportedly constructed 30 to 40 years ago, and no construction or as-built drawings were found to show the exact location of the underground additive line.

Site Soils

The native soil beneath the refinery is the Rehobeth silty clay loam, which has formed in flood plains and on valley floors. It is naturally saline, with salinity up to about 8 mmhos/cm and organic matter content up to about 1 percent. Soil pH ranges from 8 to 9. According to the 2001 No Further Action (NFA) Report for the refinery, the soil at the site is bentonite clay and silt with a hydraulic conductivity of less than 10^{-7} cm/sec.

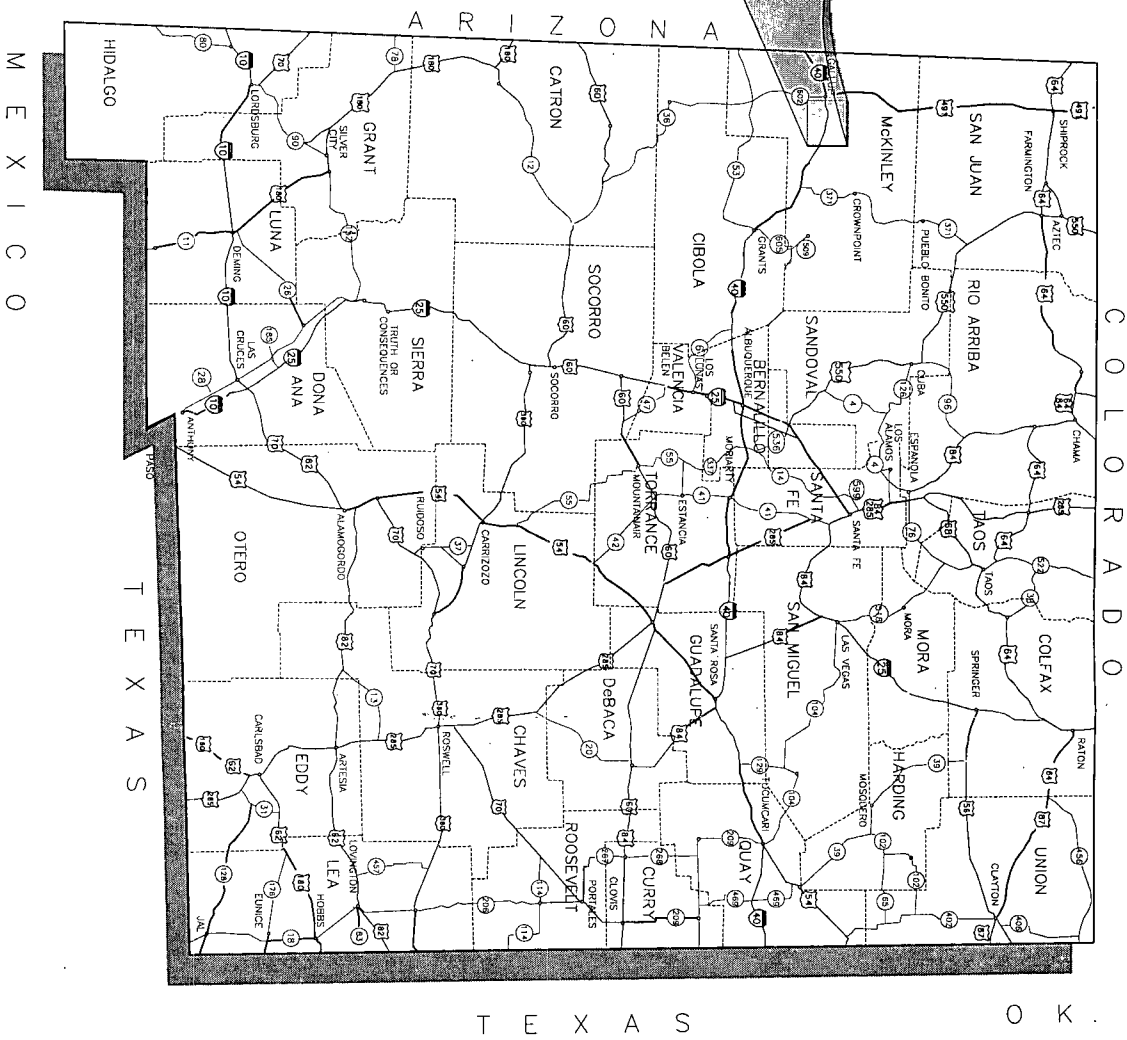
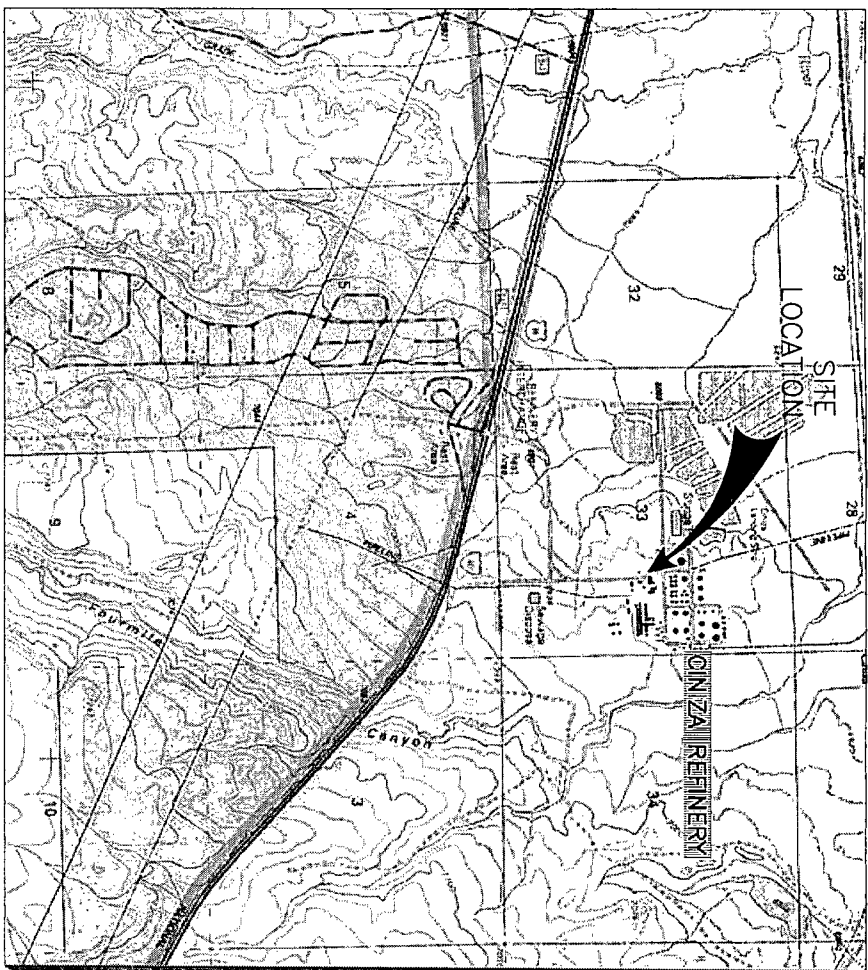
Site Geology

The refinery is located along the southwestern margin of the San Juan Basin in the Colorado Plateau Physiographic Province. The site lies on the western side of the Zuni Uplift. Surficial geology at the site consists of Quaternary alluvial deposits. The alluvium is underlain by the late Triassic Chinle Formation, which consists primarily of interbedded claystone and siltstone with minor amounts of sandstone and limestone. The Chinle Formation has a total thickness of about 1,600 feet in this area, and is generally not water-bearing, although water has been encountered in some of the minor interbedded sandstone lenses. Generally, the Chinle Formation acts as an aquitard.

ENGR. FILE :

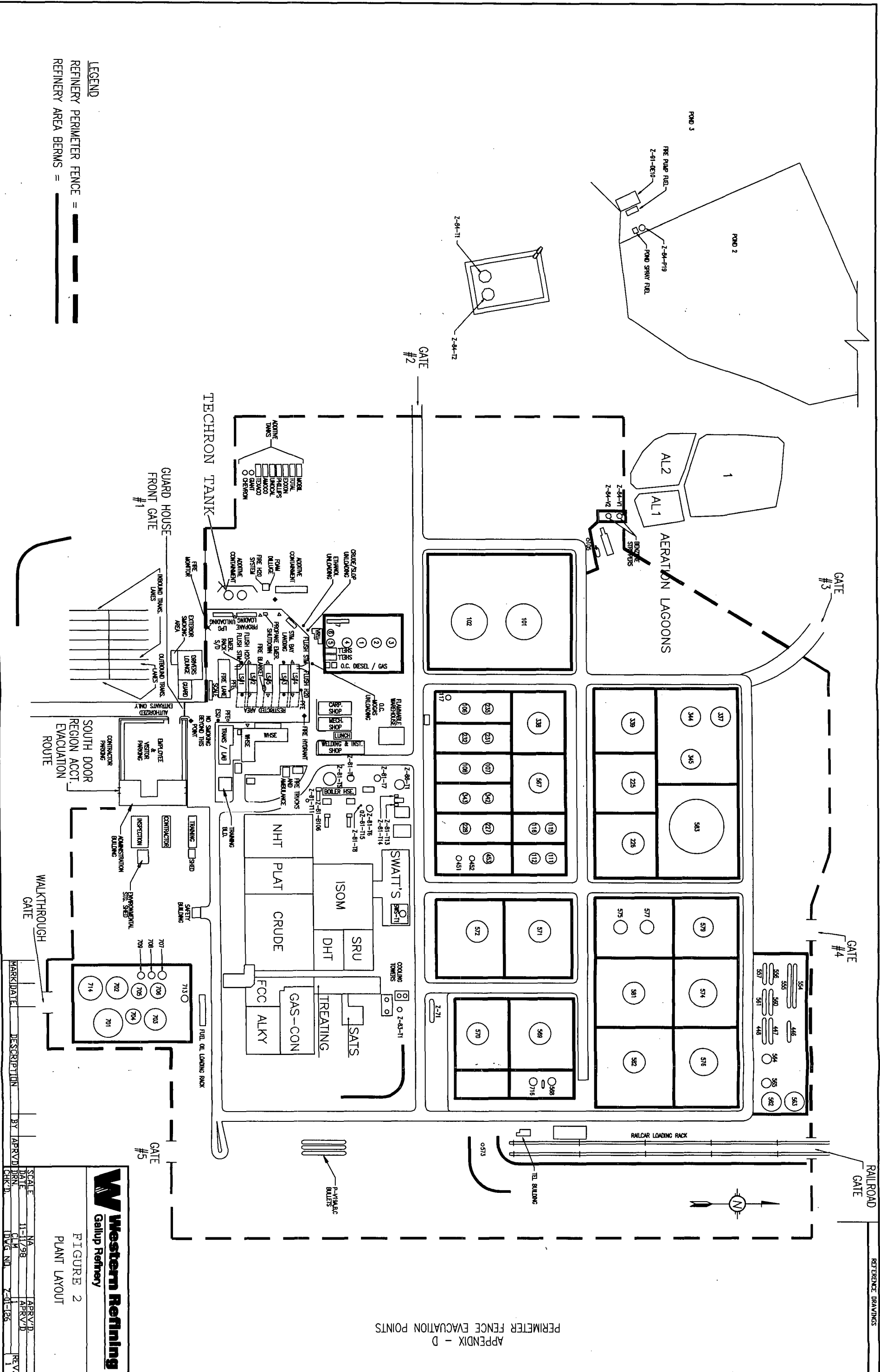
Gannett Fleming West, Inc.

FIGURE



3		
2		
1		
NO.	DESCRIPTION	DATE BY
REVISIONS (OR CHANGE NOTICES)		

**GIANT - WESTERN
REFINING COMPANY
SITE GRADING
FIGURE 1
LOCATION MAP**



Surface Water

The site is located within the Rio Puerco valley, north of the Zuni Uplift. Surface water flow off the site is generally northwest by overland flow to the tributaries of the Rio Puerco north of the site. The Rio Puerco is a principal tributary of the Rio Grande, which is east of the site.

Groundwater

The primary aquifer in the region is within the San Andres Limestone and Glorieta Sandstone formations, designated as part of the C multiple-aquifer system. The top of the San Andres Formation is at a depth of about 1,670 feet. Based on information on record at the Office of the State Engineer (OSE), groundwater in the area of the site ranges in depth from about 1,700 to 2,000 feet below ground surface, with the aquifer under artesian head. Groundwater has also been found at shallow depths, up to about 300 feet in localized areas within the region. These wells report a very low yield, on the order of less than 10 gallons per minute (gpm). Recent groundwater monitoring (Gannett Fleming West, 2008) found depth to groundwater between 21 and 27 feet below ground surface.

Based on GFW's search of the NM Office of the State Engineer's iWaters database, the closest water supply wells are approximately 2,800 and 4,000 feet away from the Techron additive tank. The NMDOT has two wells for construction of public works approximately 2,500 feet west of the site, and Chindi Peavy has a non-domestic livestock well approximately 4,000 feet north of the site. Using the average hydraulic gradient of the general area (0.0042 ft/ft) and an assumed average hydraulic conductivity for sandstone (1.0×10^{-5} cm/sec), the calculated groundwater movement rate is approximately 2.1 feet/year. Assuming groundwater is flowing directly to the wells, we estimate it would take 1,300 years for hydrocarbon impacts from the tank to reach the NMDOT wells and 1,900 years to reach the Chindi Peavy well. These calculations assume a shallow water-bearing zone exists beneath the Techron tank and is continuous to these supply wells, which is unlikely given the discontinuous nature of the sandstone layers, and the fact that most of the water for this area is supplied by wells from deeper aquifers. Therefore, it appears that there are no receptors that would be immediately threatened by an additive release.

Suspected Release

A release of the additive was suspected primarily based on an inventory discrepancy of approximately 157 gallons (< 5 bbl). Although no direct evidence of release was observed, operators at the refinery reported observing what appeared to them to be additive within the secondary containment berm and at the adjacent electrical junction box and light pole foundation shortly after the additive system pump was activated. Based on these observations, it was assumed that the release was from a break in the underground product line that had migrated into the adjacent electrical conduit. According to Chevron Products Company, an integrity test of the additive tank showed the integrity of the tank itself had not been compromised.

Because of the suspected release, loading of the additive was suspended and a program to repair the suspected ruptured product line was initiated. The repair plan was to excavate the product line and either replace the line or install a sleeve inside the existing line. Gannett Fleming, Inc. (GF) was tasked by Chevron EMC to observe the excavations, document any product that was observed, and sample any potentially impacted soil.

Purpose of Investigation

The purpose of this investigation was to determine the presence of any subsurface hydrocarbon impacts that might have resulted from an additive release from the product line. If no hydrocarbons were found to be present above the soil action level, GF was to document that. If hydrocarbons were found, GF was asked to recommend a path forward to address the additive release.

2.0 FIELD INVESTIGATION

The field investigation consisted of hand excavation of soil to try locating the additive product line for repairs, field observations, field sampling, and collection of soil samples for laboratory analysis.

Site Excavation

GF mobilized to the site on September 2, 2008, when the repair program was initiated. The actual repair work was performed by Kachina Petroleum Company (Kachina), under contract to Chevron Products Company. Kachina began by hand digging an excavation at the east wall of the containment berm (Appendix B, photos 1, 2, and 3). The purpose of the excavation was to locate the product line coming from the additive tank to trace it and find the release point. The excavation was dug to approximately 4 feet along most of the containment wall, but no product line was uncovered. GF observed the digging and took a heated headspace sample of the soil from the bottom of the excavation. No evidence of any hydrocarbons was observed, and the headspace reading showed no Volatile Organic Compound (VOC) present.

Failing to find the product line by the end of the day, Kachina temporarily suspended work with the intention of continuing the search the following day. On September 3, Kachina began hand digging a new excavation north and east of the additive tank (Appendix B, photo 4). This location was west of the access road for the truck loading rack, on a line from the utility trench leading to the rack. This excavation exposed electrical conduits and one previously abandoned additive line, but no product line currently in use (Appendix B, photos 5 and 6).

Kachina then stopped work at that location and returned to the initial trench at the tank containment wall. They continued that excavation to the south and uncovered five utility conduits but still did not locate the Techron product line. The excavation then extended the entire length of the east wall of the tank containment berm, without uncovering a product line.

Kachina began a third excavation near the fire extinguisher at the intersection of the curb line of the access road and the utility trench (Appendix B, 7 and 8). This excavation uncovered approximately 12 utility conduits, but still did not find the Techron line. One additive line was encountered in this trench, but it turned to the north instead of to the south where the Techron tank was located. At that point, Kachina decided to stop work and develop a new work plan for replacing the additive line.

Field Observations

GF observed the excavation and collected soil samples for heated headspace analysis. GF field personnel inspected each of the three excavations and checked the breathing zone for VOC concentrations periodically during the excavation using a photoionization detector (PID). No concentration of VOCs was detected in the breathing zone, and no visual evidence of hydrocarbons was observed in any of the excavations. No phase separated hydrocarbon was observed, although there was a slight petroleum odor in the soil around the utility conduits in the excavation at the tank containment wall. Minor discolored soil was also observed around the conduit in the excavation near the fire extinguisher.

Field Testing

On September 2, 2008, prior to mobilizing to the site, GF calibrated the field instruments (PID and H₂S monitor). Both were found to be in good operating order and were calibrated using manufacturer supplied calibration gas, according to instrument specifications. One soil sample was collected from each of the three excavations for heated headspace analysis. Samples were collected using a shovel and hand scoop. Prior to sample collection, the sampling equipment was decontaminated by washing in a solution of Alconox and deionized (DI) water, rinsed with DI water, and allowed to air dry. The samples were collected with a hand scoop and placed directly into ziplock bags. The bags were filled to about half-volume, sealed, heated, and allowed to volatilize for at least ten minutes. The sample was analyzed by inserting the PID probe directly into the bag to measure Total Petroleum Hydrocarbon (TPH) concentration. The sample from each excavation was collected from the soil that appeared to have the highest potential for hydrocarbons. The results are shown on Table 1.

Table 1. Field Headspace Analysis Results		
LOCATION	DEPTH (FT)	PID READNG (PPM)
East side of tank containment wall	4	0.3
North and east of Techron tank	4	293
Curb line on utility trench alignment	2	54.3

The highest reading, and the only one that exceeded the soil action level of 100 parts per million (ppm), was around the utility lines in the excavation near the fire extinguisher, which was between the Techron tank and the access road for the truck loading rack. Because the Techron product line was never located, the source of this hydrocarbon impact cannot be determined. Since the site is a petroleum refinery, so a headspace result

of 293 ppm is not unusual, and could be associated with a long-term or older release and not with a recent release of Techron additive. No area of significant contamination between the Techron tank and the truck loading rack was found that could be directly correlated with the Chevron additive tank.

3.0 LABORATORY ANALYSIS

A soil sample was collected from each of the three excavations for laboratory analysis. These samples were collected from the same locations from which the headspace samples were collected. Based on the composition of Techron, the soil samples were analyzed for VOCs by EPA Method 8260B, and Gasoline and Diesel Range Organics (GRO/DRO) by EPA Method 8015. Samples were collected using the methanol extraction method. The sampling kits and bottles were provided by Test America, the laboratory that conducted the chemical analyses. The soil samples were collected using the methanol extraction device and extruded directly into the prepared sample bottles, which had the appropriate preservative added. The GRO/DRO samples were collected with the decontaminated hand scoop and placed directly into the laboratory-prepared soil sample jars. After collection, the samples were labeled and placed on ice in the sample container. The chain-of-custody form was completed, and the samples were shipped to the analytical laboratory on September 4, 2008. The analytical report (Appendix A) shows all samples were received by the laboratory in good condition and within specifications.

The sample locations are shown on Table 2. The results of the laboratory analyses are summarized on Table 3, and the full analytical report is included as Appendix A to this report.

Table 2. Laboratory Sample Locations	
SAMPLE ID	SAMPLE LOCATION
5084134-1	Beneath utility conduit in excavation by tank containment
5084134-2	Discolored soil in excavation northeast of Techron tank
5084134-3	Bottom of excavation near fire extinguisher

Table 3 and Appendix A show that very few parameters were detected in any of the three samples, and those that were detected were found at low concentrations.

4.0 CONCLUSIONS

The purpose of this investigation was to determine if any environmental impact had occurred from a suspected product additive release, and if environmental remediation was required. No such adverse environmental impact was discovered by this investigation, and so no further action is recommended at this time. Following are the conclusions of this investigation:

1. Although no broken product line was found, three soil excavations were dug on a direct line from the additive tank to the loading rack where any hydrocarbon impact would be expected. None was found.

Table 3
Summary of Soil Analytical Results
Chevron Facility # 5081434
Gallup, New Mexico

Sample ID	Date Sampled	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	TMBS	GRO	DRO	MEK	Naphthalene	Sample Depth (ft)
5084134-1	09/03/08	<0.082	<0.12	<0.096	<0.27	<0.18	<0.23	<0.15	59	180	1,900	<0.73	<0.41	4
5084134-2	09/03/08	0.014	<0.0041	0.015	<0.0082	0.03	<0.0041	<0.0041	0.006	5.6	12	0.040	0.0093	4
5084134-3	09/03/08	0.60	<0.038	0.44	<0.040	0.52	<0.073	<0.046	0.171	13	<3.1	<0.23	<0.13	2

NOTES:

All results reported in milligrams per microgram (parts per million [ppm]).

< = Less than the reporting limit shown.

Bold indicates detections

2. The excavation east of the tank containment wall is between the additive tank and the junction box where additive was reportedly observed. Had the suspected additive release occurred in that area, it should have been detected in that excavation, but none was found.
3. The excavation between the additive tank and the loading rack access road should have detected any hydrocarbon release, had a significant release of additive occurred anywhere between the tank and the utility trench. No hydrocarbons were detected.
4. One end of the Techron additive line was found in the utility trench at the loading rack. The excavation near the fire extinguisher was on line with that utility trench and downgradient from the rack. Therefore, any significant Techron release from the additive line in that trench would be expected to migrate in the direction of that trench. However, no such impact was detected.
5. Based on the Material Safety Data Sheet (MSDS), the major composition of Techron is petroleum distillates, naphtha, and Stoddard solvent, which are common, non-hazardous constituents of petroleum products.
6. The release was small (less than 5 bbl) and the site soils are very low permeability (10^{-6} cm/sec) clays. Therefore, no hydrocarbon from this release is expected to leave the boundaries of the immediate product line area within the refinery.
7. The highest hydrocarbon concentration detected was in one sample showing DRO at a concentration of 1,900 mg/kg near the tank containment wall. Because Techron is primarily composed of light aromatics, rather than the heavier components of DROs, this detection does not appear to represent a recent release of Techron.

GF understands that a replacement additive product line has been installed between the Techron tank and the truck loading rack, and the additive operation is back in service. The former product line, which was never found except at the ends, has been abandoned in place. The line was flushed out with water and the ends were capped. With the new line installed, and the former line out of service, no additional release should occur from the old product line.

Because the actual additive line could not be found, a subsurface release could not be confirmed. No hydrocarbons were found that could be attributed to a Techron release. The hydrocarbon that was detected was at low concentrations, and of a type commonly found throughout petroleum refineries in general. Based on the laboratory analytical results, no hydrocarbon was found above soil action levels. If subsurface impact does exist, it is confined to a very small area, and does not appear to have any potential for offsite migration. Therefore GF recommends no further action at this site.

5.0 REFERENCES

Gannett Fleming West, 2008, Gallup Refinery Groundwater Confirmation Monitoring Report, Monitoring Wells OW-14 and OW-30.

Giant Ciniza Refinery., 2001, NFA Report

Natural Resources Conservation Service, 2004, Soil Survey of McKinley Area, New Mexico.

ANALYTICAL REPORT

Job Number: 400-34074-1

SDG Number: CVX Fac #5084134

Job Description: Gallup, NM

For:

Gannett Fleming

2155 Louisiana NE

Suite 7000

Albuquerque, NM 87110

Attention: Mike E. Brazie



Stephanie Akers

Project Manager I

stephanie.akers@testamericainc.com

09/22/2008

The test results in this report meet all NELAP requirements for accredited parameters and relate only to the referenced samples. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LA000307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 www.testamericainc.com



Job Narrative
400-J34074-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: samples 5084134-1 (400-34074-1) and 5044134-3 (400-34074-3) required dilutions due to the presence of target and/or non-target analytes. Sample data has been reported to laboratory MDLs in order to report as low as possible.

No analytical or quality issues were noted.

GC VOA

Method(s) 8021B: The fid surrogate for sample 5084134-1 (400-34074-1) was outside acceptance limits due to matrix interference.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) 8015B: Surrogate recovery for the following sample(s) was outside control limits: 5084134-1 (400-34074-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
400-34074-1	5084134-1				
Isopropylbenzene		0.20 J	0.89	mg/Kg	8260B
N-Propylbenzene		0.54 J	0.89	mg/Kg	8260B
o-Xylene		2.8	0.89	mg/Kg	8260B
p-Cymene		0.58 J	0.89	mg/Kg	8260B
1,2,4-Trimethylbenzene		29	0.89	mg/Kg	8260B
1,3,5-Trimethylbenzene		30	0.89	mg/Kg	8260B
Gasoline Range Organics (GRO)-C6-C10		180	18	mg/Kg	8015M
Diesel Range Organics [C10-C28]		1900	15	mg/Kg	8015B
Percent Solids		84	0.10	Percent	PercentMoisture
400-34074-2	5084134-2				
Acetone		0.18	0.020	mg/Kg	8260B
Benzene		0.014	0.0041	mg/Kg	8260B
Ethylbenzene		0.015	0.0041	mg/Kg	8260B
Methyl Ethyl Ketone		0.040	0.020	mg/Kg	8260B
Methyl tert-butyl ether		0.030	0.0041	mg/Kg	8260B
Naphthalene		0.0093	0.0041	mg/Kg	8260B
N-Propylbenzene		0.0050	0.0041	mg/Kg	8260B
1,2,4-Trimethylbenzene		0.0061	0.0041	mg/Kg	8260B
Gasoline Range Organics (GRO)-C6-C10		5.6	5.1	mg/Kg	8015M
Diesel Range Organics [C10-C28]		12	2.9	mg/Kg	8015B
Percent Solids		87	0.10	Percent	PercentMoisture
400-34074-3	5084134-3				
Benzene		0.60	0.28	mg/Kg	8260B
Ethylbenzene		0.44	0.28	mg/Kg	8260B
Isopropylbenzene		0.036 J	0.28	mg/Kg	8260B
Methyl tert-butyl ether		0.52	0.28	mg/Kg	8260B
m-Xylene & p-Xylene		0.10 J	0.56	mg/Kg	8260B
N-Propylbenzene		0.10 J	0.28	mg/Kg	8260B
1,2,4-Trimethylbenzene		0.10 J	0.28	mg/Kg	8260B
1,3,5-Trimethylbenzene		0.071 J	0.28	mg/Kg	8260B
Gasoline Range Organics (GRO)-C6-C10		13	5.6	mg/Kg	8015M
Percent Solids		82	0.10	Percent	PercentMoisture

METHOD SUMMARY

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL PEN	SW846 8260B	
Closed System Purge and Trap	TAL PEN		SW846 5035
GRO by 8015M	TAL PEN	SW846 8015M	
Closed System Purge and Trap	TAL PEN		SW846 5035
Diesel Range Organics (DRO) (GC)	TAL PEN	SW846 8015B	
Ultrasonic Extraction	TAL PEN		SW846 3550B

Lab References:

TAL PEN = TestAmerica Pensacola

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method	Analyst	Analyst ID
SW846 8260B	Hunt, Bruce	BH
SW846 8015M	Khramova, Galina	GK
SW846 8015B	Ayers, Kim	KA
EPA PercentMoisture	Chea, Vanda	VC

SAMPLE SUMMARY

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
400-34074-1	5084134-1	Solid	09/03/2008 1430	09/05/2008 1011
400-34074-2	5084134-2	Solid	09/03/2008 1445	09/05/2008 1011
400-34074-3	5084134-3	Solid	09/03/2008 1500	09/05/2008 1011

SAMPLE RESULTS

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-1

Lab Sample ID: 400-34074-1

Date Sampled: 09/03/2008 1430

Client Matrix: Solid

% Moisture: 16.0

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-76045

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-76052

Lab File ID: AS091008.D

Dilution: 200

Initial Weight/Volume: 6.68 g

Date Analyzed: 09/10/2008 1239

Final Weight/Volume: 5 g

Date Prepared: 09/10/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Acetone		<1.3		1.3	4.5
Benzene		<0.082		0.082	0.89
Bromobenzene		<0.23		0.23	0.89
Bromochloromethane		<0.14		0.14	0.89
Bromodichloromethane		<0.15		0.15	0.89
Bromoform		<0.089		0.089	0.89
Bromomethane		<0.16		0.16	0.89
Carbon disulfide		<0.18		0.18	0.89
Carbon tetrachloride		<0.30		0.30	0.89
Chlorobenzene		<0.093		0.093	0.89
Chloroethane		<0.34		0.34	0.89
Chloroform		<0.11		0.11	0.89
Chloromethane		<0.16		0.16	0.89
2-Chlorotoluene		<0.17		0.17	0.89
4-Chlorotoluene		<0.17		0.17	0.89
cis-1,2-Dichloroethene		<0.14		0.14	0.89
cis-1,3-Dichloropropene		<0.21		0.21	0.89
Dibromochloromethane		<0.16		0.16	0.89
1,2-Dibromo-3-Chloropropane		<0.59		0.59	0.89
Dibromomethane		<0.15		0.15	0.89
1,2-Dichlorobenzene		<0.13		0.13	0.89
1,3-Dichlorobenzene		<0.17		0.17	0.89
1,4-Dichlorobenzene		<0.15		0.15	0.89
Dichlorodifluoromethane		<0.23		0.23	0.89
1,1-Dichloroethane		<0.15		0.15	0.89
1,2-Dichloroethane		<0.15		0.15	0.89
1,1-Dichloroethene		<0.11		0.11	0.89
1,2-Dichloropropane		<0.13		0.13	0.89
1,3-Dichloropropane		<0.12		0.12	0.89
2,2-Dichloropropane		<0.32		0.32	0.89
1,1-Dichloropropene		<0.13		0.13	0.89
Ethylbenzene		<0.096		0.096	0.89
Ethylene Dibromide		<0.23		0.23	0.89
Hexachlorobutadiene		<0.20		0.20	0.89
2-Hexanone		<0.89		0.89	4.5
Iodomethane		<0.61		0.61	0.89
Isopropylbenzene		0.20	J	0.10	0.89
Isopropyl ether		<0.098		0.098	0.89
Methylene Chloride		<0.48		0.48	0.89
Methyl Ethyl Ketone		<0.73		0.73	4.5
methyl isobutyl ketone		<0.71		0.71	4.5
Methyl tert-butyl ether		<0.18		0.18	0.89
m-Xylene & p-Xylene		<0.27		0.27	1.8
Naphthalene		<0.41		0.41	0.89

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-1

Lab Sample ID: 400-34074-1

Date Sampled: 09/03/2008 1430

Client Matrix: Solid

% Moisture: 16.0

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-76045

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-76052

Lab File ID: AS091008.D

Dilution: 200

Initial Weight/Volume: 6.68 g

Date Analyzed: 09/10/2008 1239

Final Weight/Volume: 5 g

Date Prepared: 09/10/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
n-Butylbenzene		<0.17		0.17	0.89
N-Propylbenzene		0.54	J	0.16	0.89
o-Xylene		2.8		0.13	0.89
p-Cymene		0.58	J	0.14	0.89
sec-Butylbenzene		<0.17		0.17	0.89
Styrene		<0.14		0.14	0.89
tert-Butylbenzene		<0.14		0.14	0.89
1,1,1,2-Tetrachloroethane		<0.18		0.18	0.89
1,1,2,2-Tetrachloroethane		<0.13		0.13	0.89
Tetrachloroethene		<0.15		0.15	0.89
Toluene		<0.12		0.12	0.89
trans-1,2-Dichloroethene		<0.12		0.12	0.89
trans-1,3-Dichloropropene		<0.16		0.16	0.89
1,2,3-Trichlorobenzene		<0.21		0.21	0.89
1,2,4-Trichlorobenzene		<0.13		0.13	0.89
1,1,1-Trichloroethane		<0.20		0.20	0.89
1,1,2-Trichloroethane		<0.16		0.16	0.89
Trichloroethene		<0.080		0.080	0.89
Trichlorofluoromethane		<0.14		0.14	0.89
1,2,3-Trichloropropane		<0.30		0.30	0.89
1,2,4-Trimethylbenzene		29		0.21	0.89
1,3,5-Trimethylbenzene		30		0.15	0.89
Vinyl acetate		<1.6		1.6	4.5
Vinyl chloride		<0.16		0.16	0.89

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	102	73 - 124
Dibromofluoromethane	98	75 - 136
Toluene-d8 (Surr)	105	75 - 126

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-2

Lab Sample ID: 400-34074-2

Date Sampled: 09/03/2008 1445

Client Matrix: Solid

% Moisture: 13.5

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-75880

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-75885

Lab File ID: AS090923.D

Dilution: 1.0

Initial Weight/Volume: 7.06 g

Date Analyzed: 09/09/2008 1718

Final Weight/Volume: 5 g

Date Prepared: 09/09/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Acetone		0.18		0.020
Benzene		0.014		0.0041
Bromobenzene		<0.0041		0.0041
Bromochloromethane		<0.0041		0.0041
Bromodichloromethane		<0.0041		0.0041
Bromoform		<0.0041		0.0041
Bromomethane		<0.0041		0.0041
Carbon disulfide		<0.0041		0.0041
Carbon tetrachloride		<0.0041		0.0041
Chlorobenzene		<0.0041		0.0041
Chloroethane		<0.0041		0.0041
Chloroform		<0.0041		0.0041
Chloromethane		<0.0041		0.0041
2-Chlorotoluene		<0.0041		0.0041
4-Chlorotoluene		<0.0041		0.0041
cis-1,2-Dichloroethene		<0.0041		0.0041
cis-1,3-Dichloropropene		<0.0041		0.0041
Dibromochloromethane		<0.0041		0.0041
1,2-Dibromo-3-Chloropropane		<0.0041		0.0041
Dibromomethane		<0.0041		0.0041
1,2-Dichlorobenzene		<0.0041		0.0041
1,3-Dichlorobenzene		<0.0041		0.0041
1,4-Dichlorobenzene		<0.0041		0.0041
Dichlorodifluoromethane		<0.0041		0.0041
1,1-Dichloroethane		<0.0041		0.0041
1,2-Dichloroethane		<0.0041		0.0041
1,1-Dichloroethene		<0.0041		0.0041
1,2-Dichloropropane		<0.0041		0.0041
1,3-Dichloropropane		<0.0041		0.0041
2,2-Dichloropropane		<0.0041		0.0041
1,1-Dichloropropene		<0.0041		0.0041
Ethylbenzene		0.015		0.0041
Ethylene Dibromide		<0.0041		0.0041
Hexachlorobutadiene		<0.0041		0.0041
2-Hexanone		<0.020		0.020
Iodomethane		<0.0041		0.0041
Isopropylbenzene		<0.0041		0.0041
Isopropyl ether		<0.0041		0.0041
Methylene Chloride		<0.0041		0.0041
Methyl Ethyl Ketone		0.040		0.020
methyl isobutyl ketone		<0.020		0.020
Methyl tert-butyl ether		0.030		0.0041
m-Xylene & p-Xylene		<0.0082		0.0082
Naphthalene		0.0093		0.0041

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-2

Lab Sample ID: 400-34074-2

Date Sampled: 09/03/2008 1445

Client Matrix: Solid

% Moisture: 13.5

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-75880

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-75885

Lab File ID: AS090923.D

Dilution: 1.0

Initial Weight/Volume: 7.06 g

Date Analyzed: 09/09/2008 1718

Final Weight/Volume: 5 g

Date Prepared: 09/09/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
n-Butylbenzene		<0.0041		0.0041
N-Propylbenzene		0.0050		0.0041
o-Xylene		<0.0041		0.0041
p-Cymene		<0.0041		0.0041
sec-Butylbenzene		<0.0041		0.0041
Styrene		<0.0041		0.0041
tert-Butylbenzene		<0.0041		0.0041
1,1,1,2-Tetrachloroethane		<0.0041		0.0041
1,1,2,2-Tetrachloroethane		<0.0041		0.0041
Tetrachloroethene		<0.0041		0.0041
Toluene		<0.0041		0.0041
trans-1,2-Dichloroethene		<0.0041		0.0041
trans-1,3-Dichloropropene		<0.0041		0.0041
1,2,3-Trichlorobenzene		<0.0041		0.0041
1,2,4-Trichlorobenzene		<0.0041		0.0041
1,1,1-Trichloroethane		<0.0041		0.0041
1,1,2-Trichloroethane		<0.0041		0.0041
Trichloroethene		<0.0041		0.0041
Trichlorofluoromethane		<0.0041		0.0041
1,2,3-Trichloropropane		<0.0041		0.0041
1,2,4-Trimethylbenzene		0.0061		0.0041
1,3,5-Trimethylbenzene		<0.0041		0.0041
Vinyl acetate		<0.020		0.020
Vinyl chloride		<0.0041		0.0041

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	101	73 - 124
Dibromofluoromethane	102	75 - 136
Toluene-d8 (Surr)	102	75 - 126

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-3

Lab Sample ID: 400-34074-3

Date Sampled: 09/03/2008 1500

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-75880

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-75885

Lab File ID: AS090924.D

Dilution: 50

Initial Weight/Volume: 5.46 g

Date Analyzed: 09/09/2008 1739

Final Weight/Volume: 5 g

Date Prepared: 09/09/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Acetone		<0.41		0.41	1.4
Benzene		0.60		0.026	0.28
Bromobenzene		<0.073		0.073	0.28
Bromochloromethane		<0.043		0.043	0.28
Bromodichloromethane		<0.047		0.047	0.28
Bromoform		<0.028		0.028	0.28
Bromomethane		<0.051		0.051	0.28
Carbon disulfide		<0.056		0.056	0.28
Carbon tetrachloride		<0.095		0.095	0.28
Chlorobenzene		<0.029		0.029	0.28
Chloroethane		<0.11		0.11	0.28
Chloroform		<0.033		0.033	0.28
Chloromethane		<0.049		0.049	0.28
2-Chlorotoluene		<0.054		0.054	0.28
4-Chlorotoluene		<0.055		0.055	0.28
cis-1,2-Dichloroethene		<0.043		0.043	0.28
cis-1,3-Dichloropropene		<0.067		0.067	0.28
Dibromochloromethane		<0.049		0.049	0.28
1,2-Dibromo-3-Chloropropane		<0.19		0.19	0.28
Dibromomethane		<0.047		0.047	0.28
1,2-Dichlorobenzene		<0.040		0.040	0.28
1,3-Dichlorobenzene		<0.053		0.053	0.28
1,4-Dichlorobenzene		<0.046		0.046	0.28
Dichlorodifluoromethane		<0.073		0.073	0.28
1,1-Dichloroethane		<0.047		0.047	0.28
1,2-Dichloroethane		<0.046		0.046	0.28
1,1-Dichloroethene		<0.036		0.036	0.28
1,2-Dichloropropane		<0.042		0.042	0.28
1,3-Dichloropropane		<0.036		0.036	0.28
2,2-Dichloropropane		<0.10		0.10	0.28
1,1-Dichloropropene		<0.041		0.041	0.28
Ethylbenzene		0.44		0.030	0.28
Ethylene Dibromide		<0.073		0.073	0.28
Hexachlorobutadiene		<0.062		0.062	0.28
2-Hexanone		<0.28		0.28	1.4
Iodomethane		<0.19		0.19	0.28
Isopropylbenzene		0.036	J	0.031	0.28
Isopropyl ether		<0.031		0.031	0.28
Methylene Chloride		<0.15		0.15	0.28
Methyl Ethyl Ketone		<0.23		0.23	1.4
methyl isobutyl ketone		<0.22		0.22	1.4
Methyl tert-butyl ether		0.52		0.056	0.28
m-Xylene & p-Xylene		0.10	J	0.084	0.56
Naphthalene		<0.13		0.13	0.28

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-3

Lab Sample ID: 400-34074-3

Date Sampled: 09/03/2008 1500

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/05/2008 1011

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B

Analysis Batch: 400-75880

Instrument ID: GC/MS

Preparation: 5035

Prep Batch: 400-75885

Lab File ID: AS090924.D

Dilution: 50

Initial Weight/Volume: 5.46 g

Date Analyzed: 09/09/2008 1739

Final Weight/Volume: 5 g

Date Prepared: 09/09/2008 0800

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
n-Butylbenzene		<0.054		0.054	0.28
N-Propylbenzene		0.10	J	0.050	0.28
o-Xylene		<0.040		0.040	0.28
p-Cymene		<0.044		0.044	0.28
sec-Butylbenzene		<0.053		0.053	0.28
Styrene		<0.043		0.043	0.28
tert-Butylbenzene		<0.044		0.044	0.28
1,1,1,2-Tetrachloroethane		<0.056		0.056	0.28
1,1,2,2-Tetrachloroethane		<0.040		0.040	0.28
Tetrachloroethene		<0.047		0.047	0.28
Toluene		<0.038		0.038	0.28
trans-1,2-Dichloroethene		<0.038		0.038	0.28
trans-1,3-Dichloropropene		<0.052		0.052	0.28
1,2,3-Trichlorobenzene		<0.067		0.067	0.28
1,2,4-Trichlorobenzene		<0.040		0.040	0.28
1,1,1-Trichloroethane		<0.062		0.062	0.28
1,1,2-Trichloroethane		<0.052		0.052	0.28
Trichloroethene		<0.025		0.025	0.28
Trichlorofluoromethane		<0.043		0.043	0.28
1,2,3-Trichloropropane		<0.095		0.095	0.28
1,2,4-Trimethylbenzene		0.10	J	0.067	0.28
1,3,5-Trimethylbenzene		0.071	J	0.047	0.28
Vinyl acetate		<0.51		0.51	1.4
Vinyl chloride		<0.052		0.052	0.28

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	101	73 - 124
Dibromofluoromethane	96	75 - 136
Toluene-d8 (Surr)	103	75 - 126

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-1

Lab Sample ID: 400-34074-1

Client Matrix: Solid

% Moisture: 16.0

Date Sampled: 09/03/2008 1430

Date Received: 09/05/2008 1011

8015M GRO by 8015M

Method: 8015M

Analysis Batch: 400-76008

Instrument ID: GC/PID/FID

Preparation: 5035

Prep Batch: 400-76064

Lab File ID: P091216.D

Dilution: 200

Initial Weight/Volume: 6.68 g

Date Analyzed: 09/13/2008 0206

Final Weight/Volume: 5.0 g

Date Prepared: 09/12/2008 1000

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Gasoline Range Organics (GRO)-C6-C10		180		18

Surrogate	%Rec	Acceptance Limits
a,a,a-Trifluorotoluene (fid)	151	69 - 129

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-2

Lab Sample ID: 400-34074-2

Date Sampled: 09/03/2008 1445

Client Matrix: Solid

% Moisture: 13.5

Date Received: 09/05/2008 1011

8015M GRO by 8015M

Method: 8015M

Analysis Batch: 400-76008

Instrument ID: GC/PID/FID

Preparation: 5035

Prep Batch: 400-76064

Lab File ID: P091218.D

Dilution: 50

Initial Weight/Volume: 5.67 g

Date Analyzed: 09/13/2008 0402

Final Weight/Volume: 5.0 g

Date Prepared: 09/12/2008 1000

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Gasoline Range Organics (GRO)-C6-C10		5.6		5.1

Surrogate	%Rec	Acceptance Limits
a,a,a-Trifluorotoluene (fid)	99	69 - 129

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-3

Lab Sample ID: 400-34074-3

Date Sampled: 09/03/2008 1500

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/05/2008 1011

8015M GRO by 8015M

Method: 8015M

Analysis Batch: 400-76008

Instrument ID: GC/PID/FID

Preparation: 5035

Prep Batch: 400-76064

Lab File ID: P091219.D

Dilution: 50

Initial Weight/Volume: 5.45 g

Date Analyzed: 09/13/2008 0500

Final Weight/Volume: 5.0 g

Date Prepared: 09/12/2008 1000

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Gasoline Range Organics (GRO)-C6-C10		13		5.6

Surrogate	%Rec	Acceptance Limits
a,a,a-Trifluorotoluene (fid)	100	69 - 129

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-1

Lab Sample ID: 400-34074-1

Date Sampled: 09/03/2008 1430

Client Matrix: Solid

% Moisture: 16.0

Date Received: 09/05/2008 1011

8015B Diesel Range Organics (DRO) (GC)

Method: 8015B

Analysis Batch: 400-75802

Instrument ID: GC/FID/FID

Preparation: 3550B

Prep Batch: 400-75702

Lab File ID: 0801008.D

Dilution: 5.0

Initial Weight/Volume: 30.14 g

Date Analyzed: 09/09/2008 0858

Final Weight/Volume: 5.0 mL

Date Prepared: 09/08/2008 0817

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1900		15

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	2	X 59 - 143

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-2

Lab Sample ID: 400-34074-2

Date Sampled: 09/03/2008 1445

Client Matrix: Solid

% Moisture: 13.5

Date Received: 09/05/2008 1011

8015B Diesel Range Organics (DRO) (GC)

Method: 8015B

Analysis Batch: 400-75802

Instrument ID: GC/FID/FID

Preparation: 3550B

Prep Batch: 400-75702

Lab File ID: 3801038.D

Dilution: 1.0

Initial Weight/Volume: 30.31 g

Date Analyzed: 09/08/2008 2027

Final Weight/Volume: 5.0 mL

Date Prepared: 09/08/2008 0817

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		12		2.9

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	88	59 - 143

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Client Sample ID: 5084134-3

Lab Sample ID: 400-34074-3

Date Sampled: 09/03/2008 1500

Client Matrix: Solid

% Moisture: 18.4

Date Received: 09/05/2008 1011

8015B Diesel Range Organics (DRO) (GC)

Method: 8015B

Analysis Batch: 400-75802

Instrument ID: GC/FID/FID

Preparation: 3550B

Prep Batch: 400-75702

Lab File ID: 4001040.D

Dilution: 1.0

Initial Weight/Volume: 30.04 g

Date Analyzed: 09/08/2008 2039

Final Weight/Volume: 5.0 mL

Date Prepared: 09/08/2008 0817

Injection Volume:

Column ID: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		<3.1		3.1

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	80	59 - 143

Analytical Data

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

General Chemistry**Client Sample ID: 5084134-1**

Lab Sample ID: 400-34074-1

Client Matrix: Solid

Date Sampled: 09/03/2008 1430

Date Received: 09/05/2008 1011

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	84		Percent	0.10	1.0	PercentMoisture
	Any Batch: 400-75719		Date Analyzed	09/06/2008 0000		

Client Sample ID: 5084134-2

Lab Sample ID: 400-34074-2

Client Matrix: Solid

Date Sampled: 09/03/2008 1445

Date Received: 09/05/2008 1011

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	87		Percent	0.10	1.0	PercentMoisture
	Any Batch: 400-75719		Date Analyzed	09/06/2008 0000		

Client Sample ID: 5084134-3

Lab Sample ID: 400-34074-3

Client Matrix: Solid

Date Sampled: 09/03/2008 1500

Date Received: 09/05/2008 1011

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	82		Percent	0.10	1.0	PercentMoisture
	Any Batch: 400-75719		Date Analyzed	09/06/2008 0000		

DATA REPORTING QUALIFIERS

Client: Gannett Fleming

Job Number: 400-34074-1

Sdg Number: CVX Fac #5084134

Lab Section	Qualifier	Description
GC/MS VOA	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA	X	Surrogate exceeds the control limits
GC Semi VOA	X	Surrogate exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:400-75880					
LCS 400-75885/2-A	Lab Control Spike	T	Solid	8260B	400-75885
MB 400-75885/1-A	Method Blank	T	Solid	8260B	400-75885
400-34074-2	5084134-2	T	Solid	8260B	400-75885
400-34074-3	5084134-3	T	Solid	8260B	400-75885

Prep Batch: 400-75885

LCS 400-75885/2-A	Lab Control Spike	T	Solid	5035	
MB 400-75885/1-A	Method Blank	T	Solid	5035	
400-34074-2	5084134-2	T	Solid	5035	
400-34074-3	5084134-3	T	Solid	5035	

Analysis Batch:400-76045

LCS 400-76052/2-A	Lab Control Spike	T	Solid	8260B	400-76052
MB 400-76052/1-A	Method Blank	T	Solid	8260B	400-76052
400-34074-1	5084134-1	T	Solid	8260B	400-76052

Prep Batch: 400-76052

LCS 400-76052/2-A	Lab Control Spike	T	Solid	5035	
MB 400-76052/1-A	Method Blank	T	Solid	5035	
400-34074-1	5084134-1	T	Solid	5035	

Report Basis

T = Total

GC VOA

Analysis Batch:400-76008

LCS 400-76064/2-A	Lab Control Spike	T	Solid	8015M	400-76064
MB 400-76064/1-A	Method Blank	T	Solid	8015M	400-76064
400-34074-1	5084134-1	T	Solid	8015M	400-76064
400-34074-2	5084134-2	T	Solid	8015M	400-76064
400-34074-3	5084134-3	T	Solid	8015M	400-76064

Prep Batch: 400-76064

LCS 400-76064/2-A	Lab Control Spike	T	Solid	5035	
MB 400-76064/1-A	Method Blank	T	Solid	5035	
400-34074-1	5084134-1	T	Solid	5035	
400-34074-2	5084134-2	T	Solid	5035	
400-34074-3	5084134-3	T	Solid	5035	

Report Basis

T = Total

TestAmerica Pensacola

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 400-75702					
LCS 400-75702/12-A	Lab Control Spike	T	Solid	3550B	
MB 400-75702/13-A	Method Blank	T	Solid	3550B	
400-34074-1	5084134-1	T	Solid	3550B	
400-34074-2	5084134-2	T	Solid	3550B	
400-34074-2MS	Matrix Spike	T	Solid	3550B	
400-34074-2MSD	Matrix Spike Duplicate	T	Solid	3550B	
400-34074-3	5084134-3	T	Solid	3550B	
Analysis Batch:400-75802					
LCS 400-75702/12-A	Lab Control Spike	T	Solid	8015B	400-75702
MB 400-75702/13-A	Method Blank	T	Solid	8015B	400-75702
400-34074-1	5084134-1	T	Solid	8015B	400-75702
400-34074-2	5084134-2	T	Solid	8015B	400-75702
400-34074-2MS	Matrix Spike	T	Solid	8015B	400-75702
400-34074-2MSD	Matrix Spike Duplicate	T	Solid	8015B	400-75702
400-34074-3	5084134-3	T	Solid	8015B	400-75702

Report Basis

T = Total

General Chemistry

Analysis Batch:400-75719

400-34074-1	5084134-1	T	Solid	PercentMoisture
400-34074-2	5084134-2	T	Solid	PercentMoisture
400-34074-3	5084134-3	T	Solid	PercentMoisture

Report Basis

T = Total

TestAmerica Pensacola

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-75885

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 400-75885/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/09/2008 1057
Date Prepared: 09/09/2008 0800

Analysis Batch: 400-75880
Prep Batch: 400-75885
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS090905.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Result	Qual	MDL	RL
Acetone	<0.0073		0.0073	0.025
Benzene	<0.00046		0.00046	0.0050
Bromobenzene	<0.0013		0.0013	0.0050
Bromochloromethane	<0.00076		0.00076	0.0050
Bromodichloromethane	<0.00084		0.00084	0.0050
Bromoform	<0.00050		0.00050	0.0050
Bromomethane	<0.00091		0.00091	0.0050
Carbon disulfide	<0.0010		0.0010	0.0050
Carbon tetrachloride	<0.0017		0.0017	0.0050
Chlorobenzene	<0.00052		0.00052	0.0050
Chloroethane	<0.0019		0.0019	0.0050
Chloroform	<0.00059		0.00059	0.0050
Chloromethane	<0.00088		0.00088	0.0050
2-Chlorotoluene	<0.00096		0.00096	0.0050
4-Chlorotoluene	<0.00098		0.00098	0.0050
cis-1,2-Dichloroethene	<0.00076		0.00076	0.0050
cis-1,3-Dichloropropene	<0.0012		0.0012	0.0050
Dibromochloromethane	<0.00087		0.00087	0.0050
1,2-Dibromo-3-Chloropropane	<0.0033		0.0033	0.0050
Dibromomethane	<0.00083		0.00083	0.0050
1,2-Dichlorobenzene	<0.00071		0.00071	0.0050
1,3-Dichlorobenzene	<0.00095		0.00095	0.0050
1,4-Dichlorobenzene	<0.00082		0.00082	0.0050
Dichlorodifluoromethane	<0.0013		0.0013	0.0050
1,1-Dichloroethane	<0.00083		0.00083	0.0050
1,2-Dichloroethane	<0.00082		0.00082	0.0050
1,1-Dichloroethene	<0.00064		0.00064	0.0050
1,2-Dichloropropane	<0.00074		0.00074	0.0050
1,3-Dichloropropane	<0.00065		0.00065	0.0050
2,2-Dichloropropane	<0.0018		0.0018	0.0050
1,1-Dichloropropene	<0.00073		0.00073	0.0050
Ethylbenzene	<0.00054		0.00054	0.0050
Ethylene Dibromide	<0.0013		0.0013	0.0050
Hexachlorobutadiene	<0.0011		0.0011	0.0050
2-Hexanone	<0.0050		0.0050	0.025
Iodomethane	<0.0034		0.0034	0.0050
Isopropylbenzene	<0.00056		0.00056	0.0050
Isopropyl ether	<0.00055		0.00055	0.0050
Methylene Chloride	<0.0027		0.0027	0.0050
Methyl Ethyl Ketone	<0.0041		0.0041	0.025
methyl isobutyl ketone	<0.0040		0.0040	0.025

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-75885

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 400-75885/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/09/2008 1057
Date Prepared: 09/09/2008 0800

Analysis Batch: 400-75880
Prep Batch: 400-75885
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS090905.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Result	Qual	MDL	RL
Methyl tert-butyl ether	<0.0010		0.0010	0.0050
m-Xylene & p-Xylene	<0.0015		0.0015	0.010
Naphthalene	<0.0023		0.0023	0.0050
n-Butylbenzene	<0.00096		0.00096	0.0050
N-Propylbenzene	<0.00090		0.00090	0.0050
o-Xylene	<0.00071		0.00071	0.0050
p-Cymene	<0.00078		0.00078	0.0050
sec-Butylbenzene	<0.00095		0.00095	0.0050
Styrene	<0.00076		0.00076	0.0050
tert-Butylbenzene	<0.00079		0.00079	0.0050
1,1,1,2-Tetrachloroethane	<0.0010		0.0010	0.0050
1,1,2,2-Tetrachloroethane	<0.00072		0.00072	0.0050
Tetrachloroethene	<0.00084		0.00084	0.0050
Toluene	<0.00068		0.00068	0.0050
trans-1,2-Dichloroethene	<0.00068		0.00068	0.0050
trans-1,3-Dichloropropene	<0.00092		0.00092	0.0050
1,2,3-Trichlorobenzene	<0.0012		0.0012	0.0050
1,2,4-Trichlorobenzene	<0.00072		0.00072	0.0050
1,1,1-Trichloroethane	<0.0011		0.0011	0.0050
1,1,2-Trichloroethane	<0.00092		0.00092	0.0050
Trichloroethene	<0.00045		0.00045	0.0050
Trichlorofluoromethane	<0.00076		0.00076	0.0050
1,2,3-Trichloropropane	<0.0017		0.0017	0.0050
1,2,4-Trimethylbenzene	<0.0012		0.0012	0.0050
1,3,5-Trimethylbenzene	<0.00083		0.00083	0.0050
Vinyl acetate	<0.0091		0.0091	0.025
Vinyl chloride	<0.00092		0.00092	0.0050

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	103	73 - 124
Dibromofluoromethane	99	75 - 136
Toluene-d8 (Surr)	103	75 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Control Spike - Batch: 400-75885

Method: 8260B
Preparation: 5035

Lab Sample ID: LCS 400-75885/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/09/2008 1140
Date Prepared: 09/09/2008 0800

Analysis Batch: 400-75880
Prep Batch: 400-75885
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS090907.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	0.200	0.183	92	46 - 152	
Benzene	0.0500	0.0520	104	78 - 124	
Bromobenzene	0.0500	0.0514	103	81 - 120	
Bromochloromethane	0.0500	0.0480	96	77 - 123	
Bromodichloromethane	0.0500	0.0503	101	69 - 132	
Bromoform	0.0500	0.0484	97	66 - 130	
Bromomethane	0.0500	0.0486	97	21 - 156	
Carbon disulfide	0.0500	0.0376	75	65 - 123	
Carbon tetrachloride	0.0500	0.0507	101	65 - 149	
Chlorobenzene	0.0500	0.0533	107	83 - 120	
Chloroethane	0.0500	0.0460	92	53 - 134	
Chloroform	0.0500	0.0507	101	72 - 127	
Chloromethane	0.0500	0.0455	91	55 - 126	
2-Chlorotoluene	0.0500	0.0504	101	72 - 129	
4-Chlorotoluene	0.0500	0.0518	104	75 - 129	
cis-1,2-Dichloroethene	0.0500	0.0520	104	77 - 126	
cis-1,3-Dichloropropene	0.0500	0.0497	99	74 - 130	
Dibromochloromethane	0.0500	0.0477	95	76 - 122	
1,2-Dibromo-3-Chloropropane	0.0500	0.0443	89	60 - 139	
Dibromomethane	0.0500	0.0510	102	73 - 134	
1,2-Dichlorobenzene	0.0500	0.0518	104	82 - 120	
1,3-Dichlorobenzene	0.0500	0.0511	102	80 - 122	
1,4-Dichlorobenzene	0.0500	0.0510	102	76 - 128	
Dichlorodifluoromethane	0.0500	0.0456	91	41 - 140	
1,1-Dichloroethane	0.0500	0.0514	103	71 - 131	
1,2-Dichloroethane	0.0500	0.0438	88	66 - 137	
1,1-Dichloroethene	0.0500	0.0470	94	75 - 122	
1,2-Dichloropropane	0.0500	0.0519	104	78 - 121	
1,3-Dichloropropane	0.0500	0.0497	99	78 - 124	
2,2-Dichloropropane	0.0500	0.0488	98	64 - 141	
1,1-Dichloropropene	0.0500	0.0512	102	73 - 130	
Ethylbenzene	0.0500	0.0525	105	79 - 125	
Ethylene Dibromide	0.0500	0.0501	100	82 - 121	
Hexachlorobutadiene	0.0500	0.0573	115	62 - 150	
2-Hexanone	0.200	0.183	92	61 - 138	
Iodomethane	0.0500	0.0485	97	62 - 136	
Isopropylbenzene	0.0500	0.0539	108	78 - 126	
Isopropyl ether	0.0500	0.0518	104	63 - 143	
Methylene Chloride	0.0500	0.0457	91	67 - 131	
Methyl Ethyl Ketone	0.200	0.188	94	54 - 149	
methyl isobutyl ketone	0.200	0.193	96	67 - 134	
Methyl tert-butyl ether	0.0500	0.0469	94	68 - 137	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Control Spike - Batch: 400-75885

Method: 8260B
Preparation: 5035

Lab Sample ID: LCS 400-75885/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/09/2008 1140
Date Prepared: 09/09/2008 0800

Analysis Batch: 400-75880
Prep Batch: 400-75885
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS090907.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m-Xylene & p-Xylene	0.100	0.106	106	77 - 128	
Naphthalene	0.0500	0.0508	102	60 - 138	
n-Butylbenzene	0.0500	0.0524	105	62 - 143	
N-Propylbenzene	0.0500	0.0517	103	72 - 131	
o-Xylene	0.0500	0.0536	107	81 - 122	
p-Cymene	0.0500	0.0523	105	71 - 133	
sec-Butylbenzene	0.0500	0.0526	105	74 - 128	
Styrene	0.0500	0.0525	105	82 - 119	
tert-Butylbenzene	0.0500	0.0511	102	76 - 124	
1,1,1,2-Tetrachloroethane	0.0500	0.0503	101	78 - 124	
1,1,2,2-Tetrachloroethane	0.0500	0.0452	90	73 - 124	
Tetrachloroethene	0.0500	0.0544	109	79 - 126	
Toluene	0.0500	0.0534	107	80 - 123	
trans-1,2-Dichloroethene	0.0500	0.0496	99	77 - 124	
trans-1,3-Dichloropropene	0.0500	0.0476	95	75 - 128	
1,2,3-Trichlorobenzene	0.0500	0.0536	107	76 - 129	
1,2,4-Trichlorobenzene	0.0500	0.0546	109	74 - 132	
1,1,1-Trichloroethane	0.0500	0.0498	100	78 - 129	
1,1,2-Trichloroethane	0.0500	0.0514	103	78 - 122	
Trichloroethene	0.0500	0.0528	106	79 - 126	
Trichlorofluoromethane	0.0500	0.0508	102	65 - 138	
1,2,3-Trichloropropane	0.0500	0.0444	89	72 - 129	
1,2,4-Trimethylbenzene	0.0500	0.0523	105	74 - 131	
1,3,5-Trimethylbenzene	0.0500	0.0521	104	74 - 131	
Vinyl acetate	0.100	0.0962	96	55 - 156	
Vinyl chloride	0.0500	0.0433	87	60 - 124	
Surrogate	% Rec		Acceptance Limits		
4-Bromofluorobenzene	102		73 - 124		
Dibromofluoromethane	97		75 - 136		
Toluene-d8 (Surr)	102		75 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-76052

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 400-76052/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/10/2008 1135
Date Prepared: 09/10/2008 0800

Analysis Batch: 400-76045
Prep Batch: 400-76052
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS091005.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Result	Qual	MDL	RL
Acetone	<0.0073		0.0073	0.025
Benzene	<0.00046		0.00046	0.0050
Bromobenzene	<0.0013		0.0013	0.0050
Bromochloromethane	<0.00076		0.00076	0.0050
Bromodichloromethane	<0.00084		0.00084	0.0050
Bromoform	<0.00050		0.00050	0.0050
Bromomethane	<0.00091		0.00091	0.0050
Carbon disulfide	<0.0010		0.0010	0.0050
Carbon tetrachloride	<0.0017		0.0017	0.0050
Chlorobenzene	<0.00052		0.00052	0.0050
Chloroethane	<0.0019		0.0019	0.0050
Chloroform	<0.00059		0.00059	0.0050
Chloromethane	<0.00088		0.00088	0.0050
2-Chlorotoluene	<0.00096		0.00096	0.0050
4-Chlorotoluene	<0.00098		0.00098	0.0050
cis-1,2-Dichloroethene	<0.00076		0.00076	0.0050
cis-1,3-Dichloropropene	<0.0012		0.0012	0.0050
Dibromochloromethane	<0.00087		0.00087	0.0050
1,2-Dibromo-3-Chloropropane	<0.0033		0.0033	0.0050
Dibromomethane	<0.00083		0.00083	0.0050
1,2-Dichlorobenzene	<0.00071		0.00071	0.0050
1,3-Dichlorobenzene	<0.00095		0.00095	0.0050
1,4-Dichlorobenzene	<0.00082		0.00082	0.0050
Dichlorodifluoromethane	<0.0013		0.0013	0.0050
1,1-Dichloroethane	<0.00083		0.00083	0.0050
1,2-Dichloroethane	<0.00082		0.00082	0.0050
1,1-Dichloroethene	<0.00064		0.00064	0.0050
1,2-Dichloropropane	<0.00074		0.00074	0.0050
1,3-Dichloropropane	<0.00065		0.00065	0.0050
2,2-Dichloropropane	<0.0018		0.0018	0.0050
1,1-Dichloropropene	<0.00073		0.00073	0.0050
Ethylbenzene	<0.00054		0.00054	0.0050
Ethylene Dibromide	<0.0013		0.0013	0.0050
Hexachlorobutadiene	<0.0011		0.0011	0.0050
2-Hexanone	<0.0050		0.0050	0.025
Iodomethane	<0.0034		0.0034	0.0050
Isopropylbenzene	<0.00056		0.00056	0.0050
Isopropyl ether	<0.00055		0.00055	0.0050
Methylene Chloride	<0.0027		0.0027	0.0050
Methyl Ethyl Ketone	<0.0041		0.0041	0.025
methyl isobutyl ketone	<0.0040		0.0040	0.025

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-76052

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 400-76052/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/10/2008 1135
Date Prepared: 09/10/2008 0800

Analysis Batch: 400-76045
Prep Batch: 400-76052
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS091005.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Result	Qual	MDL	RL
Methyl tert-butyl ether	<0.0010		0.0010	0.0050
m-Xylene & p-Xylene	<0.0015		0.0015	0.010
Naphthalene	<0.0023		0.0023	0.0050
n-Butylbenzene	<0.00096		0.00096	0.0050
N-Propylbenzene	<0.00090		0.00090	0.0050
o-Xylene	<0.00071		0.00071	0.0050
p-Cymene	<0.00078		0.00078	0.0050
sec-Butylbenzene	<0.00095		0.00095	0.0050
Styrene	<0.00076		0.00076	0.0050
tert-Butylbenzene	<0.00079		0.00079	0.0050
1,1,1,2-Tetrachloroethane	<0.0010		0.0010	0.0050
1,1,2,2-Tetrachloroethane	<0.00072		0.00072	0.0050
Tetrachloroethene	<0.00084		0.00084	0.0050
Toluene	<0.00068		0.00068	0.0050
trans-1,2-Dichloroethene	<0.00068		0.00068	0.0050
trans-1,3-Dichloropropene	<0.00092		0.00092	0.0050
1,2,3-Trichlorobenzene	<0.0012		0.0012	0.0050
1,2,4-Trichlorobenzene	<0.00072		0.00072	0.0050
1,1,1-Trichloroethane	<0.0011		0.0011	0.0050
1,1,2-Trichloroethane	<0.00092		0.00092	0.0050
Trichloroethene	<0.00045		0.00045	0.0050
Trichlorofluoromethane	<0.00076		0.00076	0.0050
1,2,3-Trichloropropane	<0.0017		0.0017	0.0050
1,2,4-Trimethylbenzene	<0.0012		0.0012	0.0050
1,3,5-Trimethylbenzene	<0.00083		0.00083	0.0050
Vinyl acetate	<0.0091		0.0091	0.025
Vinyl chloride	<0.00092		0.00092	0.0050

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	101	73 - 124
Dibromofluoromethane	98	75 - 136
Toluene-d8 (Surr)	98	75 - 126

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Control Spike - Batch: 400-76052

Method: 8260B
Preparation: 5035

Lab Sample ID: LCS 400-76052/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/10/2008 1157
Date Prepared: 09/10/2008 0800

Analysis Batch: 400-76045
Prep Batch: 400-76052
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS091006.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acetone	0.200	0.192	96	46 - 152	
Benzene	0.0500	0.0486	97	78 - 124	
Bromobenzene	0.0500	0.0514	103	81 - 120	
Bromochloromethane	0.0500	0.0473	95	77 - 123	
Bromodichloromethane	0.0500	0.0512	102	69 - 132	
Bromoform	0.0500	0.0520	104	66 - 130	
Bromomethane	0.0500	0.0424	85	21 - 156	
Carbon disulfide	0.0500	0.0375	75	65 - 123	
Carbon tetrachloride	0.0500	0.0504	101	65 - 149	
Chlorobenzene	0.0500	0.0520	104	83 - 120	
Chloroethane	0.0500	0.0434	87	53 - 134	
Chloroform	0.0500	0.0497	99	72 - 127	
Chloromethane	0.0500	0.0414	83	55 - 126	
2-Chlorotoluene	0.0500	0.0500	100	72 - 129	
4-Chlorotoluene	0.0500	0.0511	102	75 - 129	
cis-1,2-Dichloroethene	0.0500	0.0489	98	77 - 126	
cis-1,3-Dichloropropene	0.0500	0.0482	96	74 - 130	
Dibromochloromethane	0.0500	0.0490	98	76 - 122	
1,2-Dibromo-3-Chloropropane	0.0500	0.0509	102	60 - 139	
Dibromomethane	0.0500	0.0525	105	73 - 134	
1,2-Dichlorobenzene	0.0500	0.0510	102	82 - 120	
1,3-Dichlorobenzene	0.0500	0.0502	100	80 - 122	
1,4-Dichlorobenzene	0.0500	0.0506	101	76 - 128	
Dichlorodifluoromethane	0.0500	0.0432	86	41 - 140	
1,1-Dichloroethane	0.0500	0.0488	98	71 - 131	
1,2-Dichloroethane	0.0500	0.0411	82	66 - 137	
1,1-Dichloroethene	0.0500	0.0454	91	75 - 122	
1,2-Dichloropropane	0.0500	0.0427	85	78 - 121	
1,3-Dichloropropane	0.0500	0.0501	100	78 - 124	
2,2-Dichloropropane	0.0500	0.0481	96	64 - 141	
1,1-Dichloropropene	0.0500	0.0483	97	73 - 130	
Ethylbenzene	0.0500	0.0507	101	79 - 125	
Ethylene Dibromide	0.0500	0.0521	104	82 - 121	
Hexachlorobutadiene	0.0500	0.0556	111	62 - 150	
2-Hexanone	0.200	0.205	103	61 - 138	
Iodomethane	0.0500	0.0478	96	62 - 136	
Isopropylbenzene	0.0500	0.0521	104	78 - 126	
Isopropyl ether	0.0500	0.0503	101	63 - 143	
Methylene Chloride	0.0500	0.0456	91	67 - 131	
Methyl Ethyl Ketone	0.200	0.192	96	54 - 149	
methyl isobutyl ketone	0.200	0.206	103	67 - 134	
Methyl tert-butyl ether	0.0500	0.0469	94	68 - 137	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Lab Control Spike - Batch: 400-76052

Method: 8260B
Preparation: 5035

Lab Sample ID: LCS 400-76052/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/10/2008 1157
Date Prepared: 09/10/2008 0800

Analysis Batch: 400-76045
Prep Batch: 400-76052
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: AS091006.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 g

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
m-Xylene & p-Xylene	0.100	0.103	103	77 - 128	
Naphthalene	0.0500	0.0557	111	60 - 138	
n-Butylbenzene	0.0500	0.0504	101	62 - 143	
N-Propylbenzene	0.0500	0.0502	100	72 - 131	
o-Xylene	0.0500	0.0522	104	81 - 122	
p-Cymene	0.0500	0.0498	100	71 - 133	
sec-Butylbenzene	0.0500	0.0504	101	74 - 128	
Styrene	0.0500	0.0509	102	82 - 119	
tert-Butylbenzene	0.0500	0.0490	98	76 - 124	
1,1,1,2-Tetrachloroethane	0.0500	0.0502	100	78 - 124	
1,1,2,2-Tetrachloroethane	0.0500	0.0486	97	73 - 124	
Tetrachloroethene	0.0500	0.0523	105	79 - 126	
Toluene	0.0500	0.0531	106	80 - 123	
trans-1,2-Dichloroethene	0.0500	0.0471	94	77 - 124	
trans-1,3-Dichloropropene	0.0500	0.0492	98	75 - 128	
1,2,3-Trichlorobenzene	0.0500	0.0550	110	76 - 129	
1,2,4-Trichlorobenzene	0.0500	0.0549	110	74 - 132	
1,1,1-Trichloroethane	0.0500	0.0494	99	78 - 129	
1,1,2-Trichloroethane	0.0500	0.0532	106	78 - 122	
Trichloroethene	0.0500	0.0504	101	79 - 126	
Trichlorofluoromethane	0.0500	0.0493	99	65 - 138	
1,2,3-Trichloropropane	0.0500	0.0475	95	72 - 129	
1,2,4-Trimethylbenzene	0.0500	0.0510	102	74 - 131	
1,3,5-Trimethylbenzene	0.0500	0.0507	101	74 - 131	
Vinyl acetate	0.100	0.0975	98	55 - 156	
Vinyl chloride	0.0500	0.0401	80	60 - 124	
Surrogate	% Rec		Acceptance Limits		
4-Bromofluorobenzene	102		73 - 124		
Dibromofluoromethane	99		75 - 136		
Toluene-d8 (Surr)	102		75 - 126		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-76064

Method: 8015M
Preparation: 5035

Lab Sample ID: MB 400-76064/1-A
Client Matrix: Solid
Dilution: 50
Date Analyzed: 09/10/2008 1810
Date Prepared: 09/10/2008 1630

Analysis Batch: 400-76008
Prep Batch: 400-76064
Units: mg/Kg

Instrument ID: GC/PID/FID
Lab File ID: P091002.D
Initial Weight/Volume: 5.0 g
Final Weight/Volume: 5.0 g
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Gasoline Range Organics (GRO)-C6-C10	<5.0		5.0

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene (fid)	96	69 - 129

Lab Control Spike - Batch: 400-76064

Method: 8015M
Preparation: 5035

Lab Sample ID: LCS 400-76064/2-A
Client Matrix: Solid
Dilution: 50
Date Analyzed: 09/11/2008 1207
Date Prepared: 09/10/2008 1630

Analysis Batch: 400-76008
Prep Batch: 400-76064
Units: mg/Kg

Instrument ID: GC/PID/FID
Lab File ID: P091103.D
Initial Weight/Volume: 5.0 g
Final Weight/Volume: 5.0 g
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Gasoline Range Organics (GRO)-C6-C10	10.0	11.3	113	79 - 123	

Surrogate	% Rec	Acceptance Limits
a,a,a-Trifluorotoluene (fid)	96	69 - 129

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

Method Blank - Batch: 400-75702

Method: 8015B
Preparation: 3550B

Lab Sample ID: MB 400-75702/13-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1918
Date Prepared: 09/08/2008 0817

Analysis Batch: 400-75802
Prep Batch: 400-75702
Units: mg/Kg

Instrument ID: GC/FID/FID
Lab File ID: 2601026.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	<2.5		2.5

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	78	59 - 143

Lab Control Spike - Batch: 400-75702

Method: 8015B
Preparation: 3550B

Lab Sample ID: LCS 400-75702/12-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1924
Date Prepared: 09/08/2008 0817

Analysis Batch: 400-75802
Prep Batch: 400-75702
Units: mg/Kg

Instrument ID: GC/FID/FID
Lab File ID: 2701027.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel Range Organics [C10-C28]	334	351	105	67 - 155	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	89	59 - 143

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Gannett Fleming

Job Number: 400-34074-1
Sdg Number: CVX Fac #5084134

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-75702**

**Method: 8015B
Preparation: 3550B**

MS Lab Sample ID: 400-34074-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1935
Date Prepared: 09/08/2008 0817

Analysis Batch: 400-75802
Prep Batch: 400-75702

Instrument ID: GC/FID/FID
Lab File ID: 2901029.D
Initial Weight/Volume: 30.20 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

MSD Lab Sample ID: 400-34074-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1941
Date Prepared: 09/08/2008 0817

Analysis Batch: 400-75802
Prep Batch: 400-75702

Instrument ID: GC/FID/FID
Lab File ID: 3001030.D
Initial Weight/Volume: 30.03 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Diesel Range Organics [C10-C28]	84	85	43 - 144	2	47		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	74	61	59 - 143

**Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 400-75702**

**Method: 8015B
Preparation: 3550B**

MS Lab Sample ID: 400-34074-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1935
Date Prepared: 09/08/2008 0817

Units: mg/Kg

MSD Lab Sample ID: 400-34074-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 09/08/2008 1941
Date Prepared: 09/08/2008 0817

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Diesel Range Organics [C10-C28]	12	384	386	335	341

Calculations are performed before rounding to avoid round-off errors in calculated results.

Login Sample Receipt Check List

Client: Gannett Fleming

Job Number: 400-34074-1

SDG Number: CVX Fac #5084134

Login Number: 34074

List Source: TestAmerica Pensacola

Creator: Hor, Koma

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



Photograph 1: Initial excavation, east containment wall



Photograph 2: Initial excavation



Photograph 3: Initial excavation with Techron tank in the background



Photograph 4: Second excavation



Photograph 5: Conduit in second excavation



Photograph 6: Conduit in second excavation



Photograph 7: Third excavation, near curb line



Photograph 8: Third excavation

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CERTIFIED MAIL: 7006 3450 0000 7452 3097

2008 NOV 20 PM 1 51

November 19, 2008

✓ State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division (OCD)
1220 South St. Francis Dr.
Santa Fe, NM 87505
Attention: Mr. Carl Chavez

State of New Mexico
New Mexico Environmental Department-
Hazardous Waste Bureau (HWB)
2905 Radio Park East- Bldg #1
Santa Fe, NM 87505
Attention: Mr. Steve Conley

Reference: **SPILL INCIDENT** (INITIAL REPORT)-Light Cat Gasoline Spill (November 11, 2008)
(NMAC 19:15.3.116; NMAC 20.6.1203)- IDEA#888 / GW-032

Dear Mr. Chavez and Mr. Conley;

In accordance with and prescribed in the above regulations, please accept the following submittal for a spill incident that occurred at approximately 0300 hours on November 11, 2008. Light Cat Gasoline was being slopped to Tank 107 at the time of the incident. Tank 107 was overfilled and ran down the sides of the tank due to poor communication and employees not following Company Tank Filling Procedures. The rundown valve was closed immediately and the Light Cat Gasoline was routed to Tank 235. The spill material was contained within an earthen dike that surrounds Tank 107/Tank 108. The onsite Fire Department was immediately dispatched in order to apply a foam blanket over the spill area.

The Environmental Engineer on call was notified at approximately 0315 hours. He arrived at the facility at approximately 0415 hours. After assessing the situation, he then notified both the NMED (Spill Response Hotline, at 0519 hours) and the Oil Conservation Division (OCD, at 0527 hours). Initial cleanup commenced by the removal of any free liquids including the slop product and the foam that was remained in the spill area. Soil samples were collected for analysis. The results are pending at this time. The spill material is to be collected in roll-off boxes pending the analytical results. Once analytical results have been received from the laboratory, a proper determination can be ascertained as to its disposition.

If you should have any questions or concerns in regards to this matter, please feel free to contact me at (505) 722-0258.

Sincerely,


Beck Larsen

Environmental Engineer-CHMM/REM

Cc: NMED-HWB
File

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: Western Refining	Contact: Beck Larsen
Address: I-40 / Exit 39	Telephone No.: (505) 722-0258
Facility Name: Western Refining (Gallup)	Facility Type: Petroleum Refinery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
T-107	28	15 N	15 W					McKinley

Latitude 108° 24' 040" Longitude 35° 29' 030"

NATURE OF RELEASE

Type of Release: Light Cat Gasoline	Volume of Release 22 bbls	Volume Recovered 0 bbls
Source of Release T-107	Date and Hour of Occurrence 11/11/2008 0300	Date and Hour of Discovery 11/11/2008 0300
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Message left with NMED & OCD	
By Whom? Beck Larsen	Date and Hour 11/11/2008 (0519 & 0527 respectively)	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The Company experienced a large quantity of Light Cat Gasoline to the slop system (Tank 107). Communication could have been better leading to this event. Employees did not follow designated Company tank filling procedures. Tank 107 overfilled and ran down the sides as a result of not following these Company filling procedures. The Rundown valve at T-107 was immediately closed and the Lt Cat Gasoline was routed to T-235. The spill was contained within an earthen dike area around Tk-107. The onsite Fire Department immediately applied a foam blanket on top of the spilled area.

Describe Area Affected and Cleanup Action Taken.*

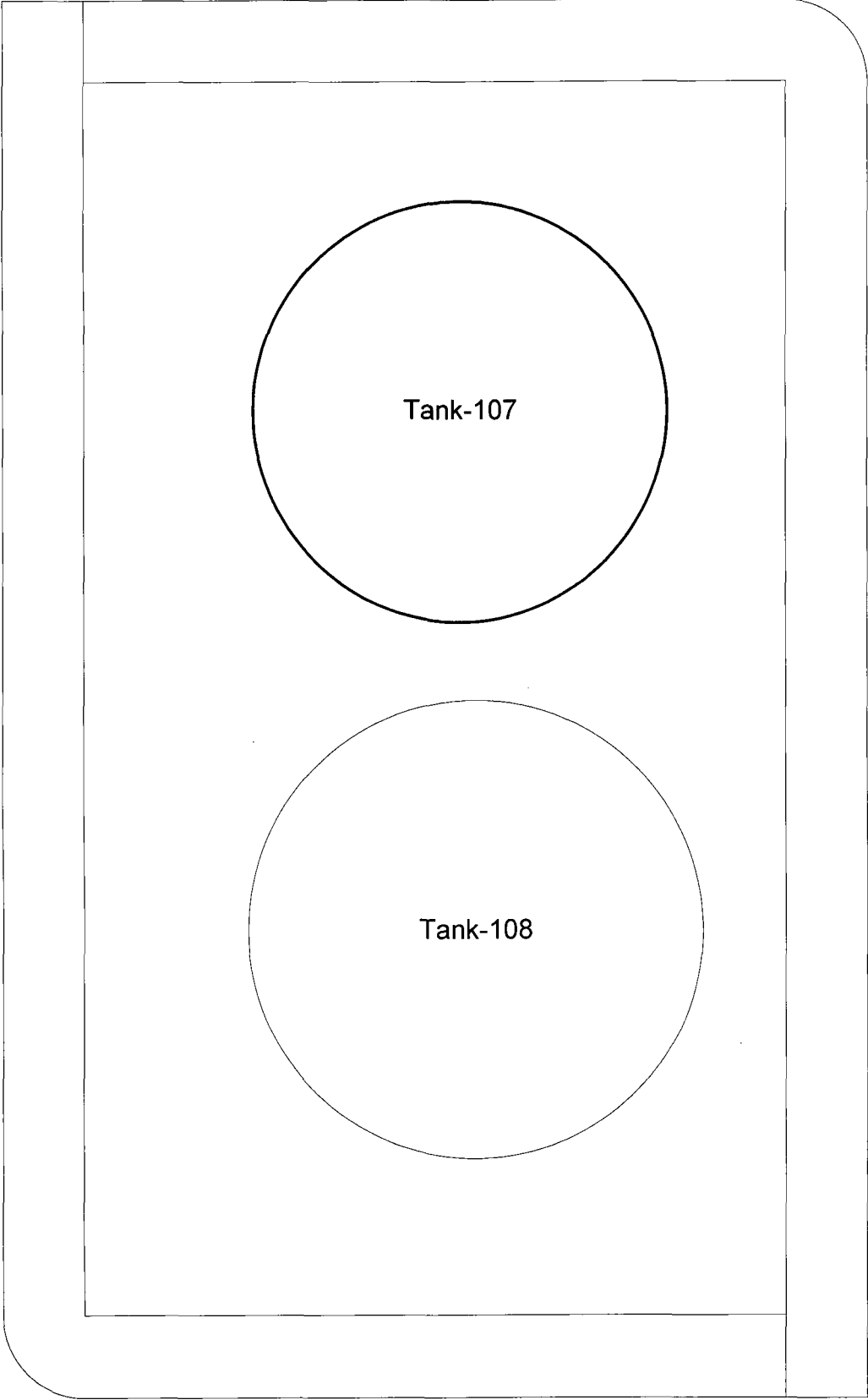
The spill was contained within an earthen dike berm area around Tk-107. The onsite Fire Department immediately applied a foam blanket on top of the spilled area until remediation of the effected area could be initiated. The foam and all liquids were cleaned up using vacuum trucks. Initial sampling and cleanup procedures are commencing requiring soil excavation of the affected area. The contaminated soil will then be shipped to an approved waste facility.

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

OIL CONSERVATION DIVISION

Signature: <u>James C. Turri</u> 11-11-08	Approved by District Supervisor:	
Printed Name: Mark B. Turri		
Title: Facility Manager	Approval Date:	Expiration Date:
E-mail Address: mark.turri@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11/13/2008	Phone: (505) 949-0904	

* Attach Additional Sheets If Necessary



The diagram shows a large rectangular frame with rounded corners. Inside this frame is a smaller rectangle. Within the smaller rectangle, there are two circles stacked vertically. The top circle is labeled 'Tank-107' and the bottom circle is labeled 'Tank-108'.

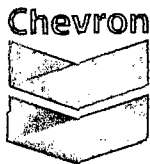
Tank-107

Tank-108



A technical diagram of a tank. It features a central circle labeled "TANK 107". This circle is enclosed by a larger, irregular, rounded square-shaped boundary. The entire diagram is framed by a thick black border. The bottom edge of the diagram has a small rectangular notch or cutout.

TANK 107



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2008 AUG 27 PM 3 28

Global Marketing



Don Lindsey
Health, Environmental &
Safety Specialist

Chevron Products Company
3200 Broadway, SE
Albuquerque, NM 87105
Tel (505) 301-5576
llin@chevron.com

August 25, 2008

Mr. Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: Techron Fuel Additive Release, Western Refining-Gallup Terminal

Dear Mr. Chavez:

Pursuant to your request, enclosed please find a completed Release Notification and Corrective Action Form C-141 for the Techron fuel additive release that occurred at the Western Refining-Gallup Refinery facility located at Gallup, New Mexico.

As we discussed, our records indicate that approximately 157 gallons (less than five (5) barrels) of Techron fuel additive was released. Because the release was of a fuel additive and was less than five (5) barrels, written notification is not required under 19:15:116 of the New Mexico Administrative Code. However, this matter is still under internal review so we are pursuing a conservative approach by submitting this form. Additionally, we appreciate your assistance and want to continue the current level of cooperation between Chevron Products Company and New Mexico Oil Conservation Division through the final resolution of this matter.

As noted in the form, upon discovery of the release, we immediately shutdown the line to avoid the potential for any further release. The line remains out of service and will remain that way until the line is repaired. We have retained a contractor to perform the repairs to the line. Additionally, plans are being developed for the remediation of impacted soils in the area of the release. The remediation will be performed upon completion on the line repairs.

If you should have any questions or would like to discuss this matter further, please do not hesitate to contact me at my office, 505-898-5914, or via my cell, 505-301-5576.

Sincerely,

Don L. Lindsey

District I
1625 N. French Dr., Hobbs, NM 88240
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1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

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

C-141

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	CHEVRON PRODUCTS COMPANY	Contact	DON LINDSEY
Address	RT 3 BOX 7	Telephone No.	505 301 5576
Facility Name	WESTERN REFINING GALLUP TERMINAL	Facility Type	BULK FUEL TERMINAL (OPERATED BY WESTERN REFINING)
Surface Owner	Mineral Owner	Lease No.	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
-------------	---------	----------	-------	---------------	------------------	---------------	----------------	--------

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	TECHRON FUEL ADDITIVE	Volume of Release	EST 157 GAL	Volume Recovered	
Source of Release	TECHRON ADDITIVE LINE	Date and Hour of Occurrence		Date and Hour of Discovery	7/23/08 14:00
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	STEVE CONNELLY - NM HAZ. WASTE DIV. CARL CHAVEZ - OCD		
By Whom?	DON LINDSEY / CHEVRON	Date and Hour	8/15/08 15:37 (CONNELLY)		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

CAUSE: LEAK IN LINE FROM TECHRON TANK TO TERMINAL LOADING RACK.

ACTION TAKEN: TECHRON SYSTEM WAS SHUT DOWN IMMEDIATELY AND REMAINS OUT OF SERVICE. LINE REPAIR PLANNED. CONTRACTOR HAS BEEN HIRED. PLANS CURRENTLY BEING PLANNED & CONTRACTORS SOUGHT FOR REMEDIATION OF SOILS, WHICH WILL OCCUR AFTER LINE REPAIR.

Describe Area Affected and Cleanup Action Taken.*

AREA AFFECTED: SOIL IN PIPELINE CHASE.

ACTION TAKEN: AS ABOVE.

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

Signature:	OIL CONSERVATION DIVISION		
Printed Name:	DON L. LINDSEY		
Title:	HEALTH, ENVIRONMENTAL, SAFETY SPECIALIST	Approval Date:	Expiration Date:
E-mail Address:	llinc@chevron.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date:	8/25/08	Phone:	(505) 301-5576

* Attach Additional Sheets If Necessary

ChevronTexaco

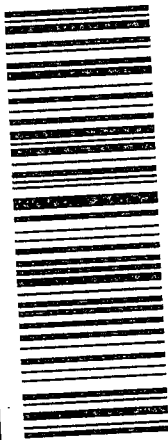
D. Lindsey
Chevron Products Company
P.O. Box 66135
Albuquerque, NM 87048



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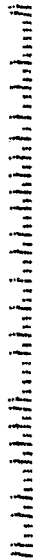


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Mr. Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505

8750594225 0011



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Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	--------------	-----------	---------------	------------------	---------------	----------------	-----------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Gasoline (87 Octane)	Volume of Release 50 barrels of gasoline (2100 gallons) estimate	Volume Recovered In process
Source of Release Overflow from Marketing Tank # 3	Date and Hour of Occurrence 8/7/2008; 4:15 pm (approximately)	Date and Hour of Discovery 8/7/2008; 4:30 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen	Date and Hour 8/7/2008 (approximately) 5:00 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.*☐ At approximately 4:15 pm on 8/7/2008, the Operations Supervisor discovered that Marketing Tank #3 was running over. This Marketing Tank #3 was running over at the roof drains and spilling 87 Octane Gasoline onto the soil within the area surrounded by a berm. No product left the containment area within the berm. Water and foam were sprayed on the spilled product for suppression of any possibility of fire. There is a detailed investigation underway – the tank was overfilled, and the primary cause is yet to be determined.

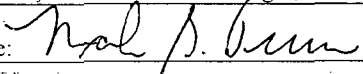
Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area of approximately 10000 square feet with some vertical penetration of the gasoline (of as yet unknown depth, but, based on prior experience, presumed to be of the order of 2 feet or less).

The area was isolated through the use of barricades to prevent unauthorized intrusion. Trucks with vacuum pumps will be used to collect free liquids (product mixed with foam and water) from within the berm. Given the duration of the discharge from the drain pipes, and the tank and pipe geometry, the estimate of the spill is approximately 50 barrels of gasoline spilled onto the ground.

In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations. There is a drainage ditch running alongside the bermed area that did not exhibit any signs of contamination apart from spray of water and foam from the fire suppression techniques employed. The water reaching the drainage ditch via the spray had not contacted any gasoline. This drainage ditch area will also be tested in the sampling and assessment to be undertaken.

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

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Mark B. Turri	Approved by District Supervisor:		
Title: Refinery Manager – Gallup	Approval Date:	Expiration Date:	
E-mail Address: mturri@wnr.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-4-2008	Phone: 505-722-3833		

Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Monday, August 11, 2008 11:26 AM
To: 'Rajen, Gaurav'; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark; Price, Wayne, EMNRD
Subject: RE: GW-32 Typographical error on incident report of August 2, 2008

Raj:

Be sure to take photos along the base of excavation areas and in the drainage ditch (discrete surface sample). Include copies of C-138's of any disposed or treated soils. If the water used during emergency procedures is fire pit water, the OCD also wants chlorides, in addition to metals, VOCs and TPH analytical test methods. If the spill location is in a RCRA SWMU area, NMED may also want MTBE or other scans run? You need to check with Hope for the final report. Please contact me if you have questions. Thank you.

* Please note that the OCD is tracking initial and final reports on OCD Online (GW-32- "C-141s") for this facility at <http://ocdimage.emnrd.state.nm.us/imaging/AEOrderFileView.aspx?appNo=pENV000GW00033>

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Rajen, Gaurav [<mailto:Gaurav.Rajen@wnr.com>]
Sent: Monday, August 11, 2008 10:22 AM
To: Chavez, Carl J, EMNRD; Monzeglio, Hope, NMENV
Cc: Riege, Ed; Turri, Mark
Subject: Typographical error on incident report of August 2, 2008

Dear Carl and Hope:

It is a pleasure to write to you.

My apologies for a typographical error in our initial incident report filed for a spill from Marketing Tank #2 that occurred on August 2, 2008 – the text in answer to the section on "source of release" says "overflow from Tank 116", but should read "overflow from Tank# 2".

We will make sure that in the future such errors are not carried over by virtue of having used a prior spill report as a template. Please note this correction for our report.

Many thanks and best regards,

Gaurav Rajen

This inbound email has been scanned by the MessageLabs Email Security System.

8/11/2008

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Oil Conservation Division
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Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

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side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
--------------------------------	--------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35°29'22" Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Gasoline (Premium)	Volume of Release 200 barrels of gasoline (8400 gallons) estimate	Volume Recovered 2100 barrels of an oil and water mixture (with 190 barrels or 8000 gallons of oil in the mixture) estimate
Source of Release Overflow from Tank #2	Date and Hour of Occurrence 8/2/2008; before 6:45 am (approximately)	Date and Hour of Discovery 8/2/2008; 6:45 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone)	
By Whom? Gaurav Rajen	Date and Hour 8/2/2008 (approximately) 10:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

Describe Cause of Problem and Remedial Action Taken.* ☐ At approximately 6:45 am on 8/2/2008, the Operations Supervisor discovered that Marketing Tank #2 was running over. This Marketing Tank #2 was running over at the roof vents and drains and spilling premium gasoline onto the soil within the area surrounded by a berm. No product left the containment area within the berm. Water and foam were sprayed on the spilled product for suppression of any possibility of fire. The response team used earth moving equipment to build up the containment barrier at that end of the containment berm at which product was collecting. This was done as a precautionary measure as the volume of liquid present was increasing from the water and the foam being sprayed onto the tank and being used to cover the spilled product. Product from the bottom of the tank was also drained out on to the ground to prevent further outflow from the roof drains – this action was taken as the outflow from the roof had a greater possibility of creating an explosive situation and draining directly on to the ground was preferable from a safety perspective. Either from the roof or the ground drain, the product was reaching the ground. This drain was disconnected from the sewer system which prevented any possibility of explosion within the sewers. This disconnect was previously in place from ongoing maintenance work. Water used to spray the tank was also entering into the tank, so water was emerging from the bottom drain along with product. There is a detailed investigation underway – the tank was overfilled, and the primary cause is yet to be determined.

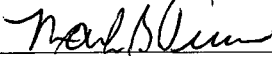
Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area of approximately 10000 square feet with some vertical penetration of the gasoline (of as yet unknown depth, but, based on prior experience, presumed to be of the order of 2 feet or less).

The area was isolated through the use of barricades to prevent unauthorized intrusion. Two trucks with vacuum pumps were used on Saturday 8-2-2008 (21 loads) and Sunday 8-3-2008 (7 loads) to collect free liquids (product mixed with foam and water) from within the berm. Approximately 28 truck-loads of approximately 75 barrels per load were collected for a total of approximately 2100 barrels (88200 gallons). Visual observation of the area determined that there was 1 inch of gasoline floating on about a foot and greater of water – i.e. a 10:1 ratio of the water to oil mixture. This leads to an estimate of approximately 200 barrels of gasoline spilled onto the ground.

In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations. There is a drainage ditch running alongside the bermed area that did not exhibit any signs of contamination apart from some limited spray of water from the fire suppression techniques employed. The water reaching the drainage ditch via the spray had not contacted any gasoline. This drainage ditch area will also be tested in the sampling and assessment to be undertaken.

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

Signature: 		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Mark B. Turri			
Title: Refinery Manager – Gallup		Approved by District Supervisor:	
E-mail Address: mturri@wnr.com		Approval Date:	Expiration Date:
Date: 8-4-2008 Phone: 505-722-3833		Conditions of Approval:	Attached <input type="checkbox"/>

- Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Monzeglio, Hope, NMENV
Sent: Thursday, May 22, 2008 8:59 AM
To: Ed Riege
Cc: Cobrain, Dave, NMENV; Frischkorn, Cheryl, NMENV; Chavez, Carl J, EMNRD
Subject: Truck Loading rack spill December
Attachments: C-141 Form for the Gasoline Spill at the Giant Gallup Refinery Loading Rack on December 4 2007 .htm; LoadRack12-4-07.pdf

Ed

I have included two attachments pertaining to a load rack spill in December. Is this the same spill you mentioned yesterday on the phone and sent me analytical to? I will need the following to review the confirmation samples from the spill to determine if additional cleanup is needed: the original laboratory reports, data for S-1 through S-9, what type of product spilled (gasoline?). I think that is all for now. Let me know if you have any questions.

Thanks

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

6/27/2008

From: Jim Lieb [Jim.Lieb@wnr.com]
Sent: Monday, December 17, 2007 1:51 PM
To: Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD; Powell, Brandon, EMNRD
Cc: Price, Wayne, EMNRD; Cobrain, Dave, NMENV; Ed Rios; Stan Fisher; Ed Riege; Joel Quinones; Don Riley; Bryon Holbrook; Ann Allen; Cheryl Johnson
Subject: C-141 Form for the Gasoline Spill at the Giant Gallup Refinery Loading Rack on December 4, 2007

Attachments: LoadRack12-4-07.pdf
Hope, Carl, Brandon:

As you know from the messages I left on your phones, we experienced a large spill of gasoline product here at the refinery on December 4, 2007. A tanker driver was opening a valve on a tanker allowing 6,800 gallons of gasoline to leak onto the loading rack pad. We immediately shut down the loading rack and foamed the area to prevent fire. We immediately dispatched a vac truck to vacuum up as much gasoline as possible - approximately 5,000 gallons was vacuumed up. Some of the gasoline made its way to drains in the loading rack area leading to the new API separator. About 300 gallons made its way onto adjoining soil. We washed down the pad with water which was vacuumed up. After the pad cleanup was finished and it was determined it was safe to do so, the rack was put back into service late in the afternoon.

A crew was immediately put to work diking the area where the gasoline leaked onto the soil. We have excavated impacted soil and placed it into either roll off boxes or on plastic liner material. We are currently making arrangements on a facility to accept the soil.

We will take confirmatory soil samples once we have excavated all the impacted soil. We will provide the sampling results to NMED and OCD. Once we receive approval we will back fill the area with clean soil.

We are conducting an incident evaluation on the spill to determine exactly why the spill occurred and how we can prevent a reoccurrence from ever happening again.

If you have any questions, please contact me at (505) 722-0227.

Regards,

Jim Lieb

Environmental Engineer
Giant Industries, Inc.
Gallup Refinery
I-40, Exit 39
Jamestown, NM 87347
(505) 722-0227
fax (505) 722-0210
jl Lieb@giant.com

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Oil Conservation Division
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Form C-141
Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western (Giant) Refining: Gallup Refinery	Contact Jim Lieb	
Address I-40, Exit 39, Jamestown NM 87347	Telephone No. 505-722-0227	
Facility Name: Gallup Refinery	Facility Type Oil refinery	
Surface Owner: Giant Industries, Inc.	Mineral Owner: Giant Industries, Inc.	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 23 & 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35°29'30" Longitude -108°24'40"

NATURE OF RELEASE

Type of Release: Gasoline Product	Volume of Release: 6,800 gallons	Volume Recovered: 5,000 gallons
Source of Release: Tanker Loading Rack	Date and Hour of Occurrence: 12/4/07 @ 1230 hours	Date and Hour of Discovery: 12/4/07 @ 1230 hours
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? OCD - Carl Chavez NMED - Hope Monzeglio	
By Whom? Jim Lieb	Date and Hour 12/4/07 at 1426 hours	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

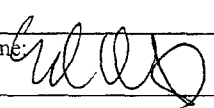
If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

A truck driver inadvertently opened a valve on a tanker and gasoline poured out onto the loading dock pad. Most of the gasoline was contained on the pad and some entered the process sewer that goes to the new API separator (NAPIS). Some of the gasoline spilled over the pad onto adjacent soil. We immediately shut down the loading dock and foamed the pad to prevent fire. A vac truck was immediately dispatched to recover spilled gasoline product. The area was also flushed with water spray to reduce likelihood of fire and to assist recovery of gasoline by the vac truck. A crew of 8 workers was put to work to dig up the impacted soil. The crew also built a low dike of soil around the impacted area.

Describe Area Affected and Cleanup Action Taken.* The release is restricted to the loading dock area. None of the release got off Giant property. The pad was washed down to help prevent fire and assist with vac truck recovery. A vac truck was able to recover approximately 5,000 gallons of gasoline product which was directed into the New API. We estimate that approximately 300 gallons of gasoline was released to the soil. The balance evaporated. The impacted soil was removed and placed either directly into roll-off boxes or on plastic liner until additional boxes can be obtained. We will sample the excavated area to ensure all the gasoline contamination has been removed. Upon OCD and NMED approval, the excavation will be back-filled with fresh soil after confirmatory sampling is conducted.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name:  ED RIOS	Approved by District Supervisor:	
Title: General Manager	Approval Date:	Expiration Date:
E-mail Address: erios@giant.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: December 7, 2007 Phone: (505) 722-0202		

* Attach Additional Sheets If Necessary

Chavez, Carl J, EMNRD

From: Ed Riege [Ed.Riege@wnr.com]
Sent: Wednesday, May 21, 2008 4:19 PM
To: Chavez, Carl J, EMNRD
Cc: Monzeglio, Hope, NMENV; Gaurav Rajen; Thurman B. Larsen
Subject: December 2007 Truck Rack Spill

Attachments: _0521160047_001.pdf



_0521160047_001.
pdf (212 KB)

<<_0521160047_001.pdf>> Carl,

Attached are analytical data detailing soil confirmation clean-up results from truck rack spill in December 2007. Approximately 450 cubic yards was removed and sent to Envirotech landfill. Please review and let us know if this meets OCD approval for closure. Once approved we can send out Final Report on Form C-141.

Thanks

Ed Riege

Ed Riege
Environmental Superintendent

Western Refining
Gallup Refinery
Route 3 Box 7
Gallup, NM 87301
(505) 722-0217
ed.riege@wnr.com

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Chavez, Carl J, EMNRD

From: Chavez, Carl J, EMNRD
Sent: Thursday, April 24, 2008 11:16 AM
To: Price, Wayne, EMNRD
Cc: Monzeglio, Hope, NMENV; 'gaurav.rajen@wnr.com'
Subject: Gallup Release ~ 81 bbls Ultra-Low Sulfur Diesel Overflow on Tk 116 within and through berm (suspected foam lines exit) ~ 150 - 200 ft. West of Tk.116

*Back Larson - Mr. Warte
will start Monday.*

Wayne:

FYI, some changes at Gallup Refinery. Mr. Gaurav Rajen (Rag) a new engineer has replaced Jim Lieb. Jim is now stationed at the Bloomfield Refinery. A new Environmental Specialist (Ms. Cheryl Johnson- CJ) is working at the refinery. Brian Holbrook has moved to the Phoenix Refinery.

I was contacted around 11 a.m. today by Raj and CJ. At approximately 2:30 a.m. this morning, CJ discovered a tank overflow at Tk. 116. The release appears to be operator error and they are looking into the details of the accident. They have vac trucks on site recovering standing fluid and will be excavating contaminated soils and running TPH and BTEX analysis of samples beneath the release. C-141 w/ photos to follow.

Please contact me if you have questions. Thanks.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

5/15/2008

Mr. Lieb:

The Oil Conservation Division (OCD) has reviewed your permit modification request under the recently issued WQCC discharge plan. The OCD has determined that your request is a "Minor Modification" and is hereby approved by the OCD. There is no fee and the minor modification will be attached onto the existing permit.

Please contact me if you have questions. Thank you.

Disclaimer: Please be advised that this e-mail does not relieve Western Refining (Giant Refining Company) Ciniza Refinery of responsibility should its operations pose a threat to ground water, surface water, human health or the environment. In addition, Giant is not relieved of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr., Santa Fe, New Mexico 87505
Office: (505) 476-3491
Fax: (505) 476-3462
E-mail: CarlJ.Chavez@state.nm.us
Website: <http://www.emnrd.state.nm.us/ocd/index.htm>
(Pollution Prevention Guidance is under "Publications")

From: Jim Lieb [mailto:jlieb@giant.com]

Sent: Friday, September 21, 2007 12:57 PM

To: Chavez, Carl J, EMNRD

Cc: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Cobrain, Dave, NMENV; Ed Rios; Ed Riege; Ann Allen; Allen Hains

Subject: Minor Permit Modification Request - Giant Refining Permit (Gw-032)

Carl:

As we discussed this morning, Giant would like to request a minor permit modification for Permit GW-032 regarding some deadlines in the permit as issued. I have attached a table containing the deadlines that we discussed and agreed upon as being mutually acceptable to both OCD and Giant.

Please issue the minor permit modification at your earliest convenience. Would it be possible to issue by September 27th?

If you have any questions, please contact me at (505) 722-0227.

Very Sincerely,

Jim Lieb

Environmental Engineer
Giant Industries, Inc.
Ciniza Refinery
I-40, Exit 39
Jamestown, NM 87347
(505) 722-0227
fax (505) 722-0210

jlleb@giant.com

This inbound email has been scanned by the MessageLabs Email Security System.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

RECEIVED
MAY 9 PM 2 16

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Western Refining Southwest Inc.	Contact Gaurav Rajen
Address I-40 Exit 39, Jamestown, NM 87347	Telephone No. 505-722-0227
Facility Name Gallup Refinery	Facility Type Oil refinery

Surface Owner Western Refining	Mineral Owner Western Refining	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section 23&33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
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Latitude 35°29'22"

Longitude 108°25'24"

NATURE OF RELEASE

Type of Release Ultra-Low Sulfur Diesel (ULSD)	Volume of Release 75 barrels (3150 gallons) estimate	Volume Recovered 12 barrels (500 gallons) estimate
Source of Release Overflow from Tank 116	Date and Hour of Occurrence 4/24/2008; 2:00 am (approximately)	Date and Hour of Discovery 4/24/2008; 2:50 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Carl J. Chavez, NMEMNRD, Oil Conservation Division; Hope Monzeglio, NMED Hazardous Waste Bureau (via telephone) -	
By Whom? Gaurav Rajen and Cheryl Johnson	Date and Hour 4/24/2008 (approximately) 11:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. Not applicable	

If a Watercourse was Impacted, Describe Fully.* Not applicable

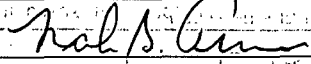
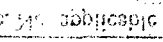
Describe Cause of Problem and Remedial Action Taken.*☐ At approximately 2:50 am on 4/24/2008, the Operations Shifter discovered Tank 116 running over. The Pump Operator was notified and a transfer was started into Tank 583. Tank 116 had run over and spilled ULSD onto the soil within the area surrounded by a berm. A lesser amount of ULSD ran down within the foam line leading into the tank. Through a drain valve on the foam line that is buried in the ground outside the berm area, some ULSD leaked out onto a service road running adjacent to Tank 116. The operator used a backhoe to build a containment dike on this road outside the tank berm area, and the spill on the road was blocked from further migration.

Describe Area Affected and Cleanup Action Taken.*

The affected area within the berm had a surface area less than approximately 500 square feet with some vertical penetration of the ULSD (of as yet unknown depth, but, based on prior experience, presumed to be of the order of 1-2 feet maximum). An affected area of approximately 500 feet in length and 2-10 feet wide (depending on the amount of pooling of the spilled material) lay along the service road. The material on the road surface is expected to have penetrated to a depth of the order of a few inches (maximum) into the underlying surface as the road surface is partially paved.

A truck with a vacuum pump was used to collect free ULSD product from within the berm and on the service road. Absorbent material was placed on the spill along the road; and this area was isolated through the use of barricades. In further cleanup actions, contaminated soils will be excavated, confirmatory environmental samples will be collected and analyzed, and all contaminated materials will be disposed off in accordance with applicable regulations.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Mark B. Turri	Approved by District Supervisor: 	
Title: Refinery Manager - Gallup	Approval Date:	Expiration Date:
E-mail Address: mturri@wnr.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4-30-2008	Phone: 505-722-0833	

• Attach Additional Sheets If Necessary