

3R-1012

**Release Report/ General
Correspondence**

Enterprise RA

Date: Jul-Sep 2015

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

JUL 13 2015

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral K-7	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: BLM	Mineral Owner: BLM	API No.
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LOCATION OF RELEASE

Unit Letter L	Section 22	Township 26N	Range 7W	Feet from the 1295	North Line South	Feet from the 1120	East Line West	County Rio Arriba
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Latitude 36.468544 Longitude -107.568421

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release Unknown Amount of Natural Gas; 5-10 bbls. fluids	Volume Recovered: None
Source of Release: Failed Repair	Date and Hour of Occurrence: 3/23/15 @ 1:00 p.m.	Date and Hour of Discovery: 3/23/15 @ 1:30 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification – Cory Smith – NMOCD; Shari Ketcham - BLM	
By Whom? Thomas Long	Date and Time 3/23/15 at 3:23 p.m.	
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: On March 23, 2015, Enterprise discovered a release on the Lateral K-7 pipeline during maintenance activities. The pipeline was previously isolated, blown down, locked out and tagged out for safety and environmental concerns. The release was a result of a faulty repair of the pipeline. Remediation was completed on April 15, 2015.

Describe Area Affected and Cleanup Action: The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 47 feet long by 34 feet wide by 18 feet deep. Approximately 854 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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>Jon E. Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 8/12/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-9-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 15 12030409

(62)



OIL CONS. DIV DIST. 3

JUL 13 2015

CORRECTIVE ACTION REPORT

Property:

**Lateral K-7 (3/23/2015) Pipeline Release
SW 1/4, S22 T26N R7W
Rio Arriba County, New Mexico**

June 23, 2015

Apex Project No. 7250415005

Prepared for:

**Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, NM 87401
Attn: Mr. Thomas Long**

Prepared by:

A handwritten signature in blue ink, appearing to read 'Rane Deechilly', written over a horizontal line.

Rane Deechilly
Environmental Scientist

A handwritten signature in blue ink, appearing to read 'Kyle Summers', written over a horizontal line.

Kyle Summers, CPG.
Branch Manager/Senior Geologist

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CORRECTIVE ACTION REPORT

Lateral K-7 (3/23/2015) Pipeline Release
SW 1/4, S22 T26N R7W
Rio Arriba County, New Mexico

Apex Project No. 7250415005

1.0 INTRODUCTION

1.1 Site Description & Background

The Lateral K-7 (3/23/2015) pipeline release site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the southwest (SW) ¼ of Section 22 in Township 26 North and Range 7 West in rural Rio Arriba County, New Mexico (36.46854N, 107.56842W), referred to hereinafter as the "Site" or "subject Site". The Site is located on land managed by the United States Bureau of Land Management (BLM). The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On March 23, 2015, a release of natural gas was identified at the Site. The release was discovered while replacing a historical "I-wrap" repair with a new solid section of pipeline. Enterprise subsequently initiated excavation activities to remediate hydrocarbon impact. The pipeline was repaired by replacing approximately 44 feet of the pipeline. The surface expression of the release was characterized by minor soil discoloration.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

1.2 Project Objective

The primary objective of the corrective actions was to reduce the concentration of constituents of concern (COCs) in the on-Site soils to below the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) *Remediation Action Levels* (RALs) using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.

2.0 SITE RANKING

In accordance with the ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex TITAN, Inc. (Apex) utilized the general site characteristics obtained during the completion of corrective action activities and information available from the Office of the New Mexico Office of the State Engineer (OSE) to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:



Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	20
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	20
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			40

Based on Apex's evaluation of the scoring criteria, the Site would earn a maximum Total Ranking Score of "40". This ranking is based on the following:

- Based on depths to groundwater observed in groundwater monitoring wells at two other release sites located at similar proximities to the Palluche Canyon Wash at comparable elevations approximately 1 mile to the north and 2 miles to the south, respectively, depth to groundwater is estimated to be less than 50 feet below grade surface (bgs), resulting in a ranking of "20".
- No water source wells (municipal/community wells) were identified within 1,000 feet of the Site. No private domestic water sources were identified within 200 feet of the Site. These proximities result in a wellhead protection area ranking of "0".
- The release point is located within a small ephemeral wash that drains to the Palluche Canyon Wash approximately 475 feet to the east, resulting in a distance to surface water ranking of "20".

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

On March 23, 2015, a release of natural gas was identified at the Site. The release was discovered while replacing a historical "I-wrap" repair with a new solid section of pipeline. Enterprise subsequently initiated excavation activities to remediate potential hydrocarbon impact. The pipeline was repaired by replacing approximately 44 feet of the pipeline. The surface expression of the release was characterized by minor soil discoloration. During the corrective action activities, Crossfire, LLC, provided heavy equipment and labor support, and Heather Woods and Raneer Deechilly, Apex environmental professionals, provided environmental support.

Corrective action excavation began at the Site on April 6, 2015. On April 9, 2015, confirmation soil samples C-1 through C-15 were collected from the sidewalls and base of the excavation for laboratory analysis. In addition, stockpile soil samples SP-1 through SP-4 were collected to determine the potential to reuse these soils as backfill material. Based on laboratory analytical results, the upper portions (approximately 1 to 9 feet bgs) of the north and east sidewalls exhibited COC concentrations above the applicable OCD RALs. On April 15, 2015, the upper portions of the excavation sidewalls were extended to remove the residual hydrocarbon affected soils and confirmation soil samples C-16 through C-18 were collected.

The overall surface expression of the final remedial action excavation measured approximately 47 feet long by 34 feet wide at the maximum, with a total depth of approximately 18 feet bgs.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silt and silty sand with minor clays.

A total of approximately 854 cubic yards of hydrocarbon affected soils were transported to the Envirotech, Inc. (Envirotech) landfarm near Hilltop, New Mexico for disposal/remediation. The executed C-138 form is provided in Appendix B. The excavation was backfilled with clean imported fill and reusable stockpiled overburden soils (demonstrated by laboratory analysis to exhibit COC concentrations below OCD RALs), and contoured to surrounding grade.

Figure 3 is a site map that indicates the approximate location of the excavated area in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is included in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of Site soils utilizing a PID fitted with a 10.6 eV lamp to evaluate VOCs and aid in determining the excavation limits.

Advance notification of the sampling schedules were provided to the local BLM and OCD district offices, however, no representatives were present during the sampling activities.

Apex's soil sampling program included the collection of a total of eighteen (18) confirmation samples (C-1 through C-18) from the resulting excavation for laboratory analysis, however, C-1 and C-3 were removed by excavation. In addition, four (4) stockpile soil samples were collected to determine the potential to reuse these soils as excavation backfill. Figure 3 depicts the approximate location of the excavated area and shows the final confirmation sample locations in relation to the final excavation dimensions (Appendix A).

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels, and placed on ice in a cooler, which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for analysis.

3.3 Laboratory Analytical Methods

The confirmation soil samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) utilizing Environmental Protection Agency (EPA) SW-846 Method #8021. The soil samples were also analyzed for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO) utilizing EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody forms and laboratory data sheets are provided in Appendix E.

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the EMNRD OCD. To address activities related to condensate releases, the EMNRD OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code 19.15.29 *Release Notification*. These guidance documents establish investigation and abatement action requirements for release sites subject to reporting and/or corrective action.

4.1 Confirmation Soil Samples

Apex compared the BTEX and TPH concentrations or laboratory reporting limits associated with the final confirmation samples to the OCD RALs for sites having a total ranking score of "40". Not included in the following discussion are confirmation soil samples C-1 and C-3 that were removed by excavation, and stockpile samples SP-1 and SP-2 which were transported to the landfarm for disposal/remediation.

- The laboratory analyses of confirmation samples collected from soils remaining in place do not indicate benzene concentrations above the laboratory reporting limits, which are below the OCD RAL of 10 milligrams per kilogram (mg/kg).
- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate total BTEX concentrations ranging from below the laboratory reporting limits to 0.15 mg/kg (C-13), which are below the OCD RAL of 50 mg/kg.
- The laboratory analyses of the confirmation samples collected from soils remaining in place indicate combined TPH GRO/DRO concentrations ranging from below the laboratory reporting limits to 62 mg/kg (C-13), which are below the OCD RAL of 100 mg/kg for a site ranking of "40".
- The laboratory analyses of the stockpile samples SP-3 and SP-4 did not indicate benzene or total BTEX concentrations above laboratory reporting limits, which are below the applicable OCD RALs. In addition, laboratory analyses of stockpile samples SP-3 and SP-4 indicate combined TPH GRO/DRO concentrations of below laboratory reporting limits and 12 mg/kg, respectively, which are below the OCD RAL for a site ranking of "40".

The hydrocarbon-affected stockpiled soils (including soils associated with stockpile samples SP-1 and SP-2) were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation.

Confirmation sample results are provided in Table 1 in Appendix D.

5.0 FINDINGS AND RECOMMENDATIONS

The Lateral K-7 (3/23/2015) pipeline release site is located within the Enterprise ROW in the SW $\frac{1}{4}$ of Section 22 in Township 26 North and Range 7 West in rural Rio Arriba County, New Mexico. The Site is located on land managed by the BLM. The Site is surrounded by native vegetation rangeland periodically interrupted by oil and gas production and gathering facilities, including the Enterprise natural gas gathering pipeline which traverses the area from approximately north to south.

On March 23, 2015, a release of natural gas was identified at the Site. The release was discovered while replacing a historical "I-wrap" repair with a new solid section of pipeline. Enterprise subsequently initiated excavation activities to remediate potential hydrocarbon impact. The pipeline was repaired by replacing approximately 44 feet of the pipeline. The surface expression of the release was characterized by minor soil discoloration.

- The primary objective of the corrective actions was to reduce the concentration of COCs in the on-Site soils to below the New Mexico EMNRD OCD RALs using the New Mexico EMNRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance.



- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silt and silty sand with minor clays.
- The overall surface expression of the final remedial action excavation measured approximately 47 feet long by 34 feet wide at the maximum, with a total depth of approximately 18 feet bgs.
- A total of eighteen (18) confirmation samples (C-1 through C-18) were collected from the resulting final excavation for laboratory analyses, however C-1 and C-3 were removed by excavation. In addition, four (4) stockpile soil samples were collected to determine the potential to reuse these soils as excavation backfill. Soils associated with stockpile samples SP-1 and SP-2 were removed to the landfarm for disposal/remediation
- Based on analytical results, soils remaining in place do not exhibit COC concentrations above the OCD RALs for a site ranking of "40".
- A total of approximately 854 cubic yards of hydrocarbon affected soils were transported to the Envirotech landfarm near Hilltop, New Mexico for disposal/remediation. The excavation was backfilled with clean imported fill and reusable stockpiled overburden soils (demonstrated by laboratory analysis to exhibit COC concentrations below OCD RALs), and contoured to surrounding grade.

Based on field observations and laboratory analytical results, no additional investigation or corrective action with respect to soil impact appears warranted at this time.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

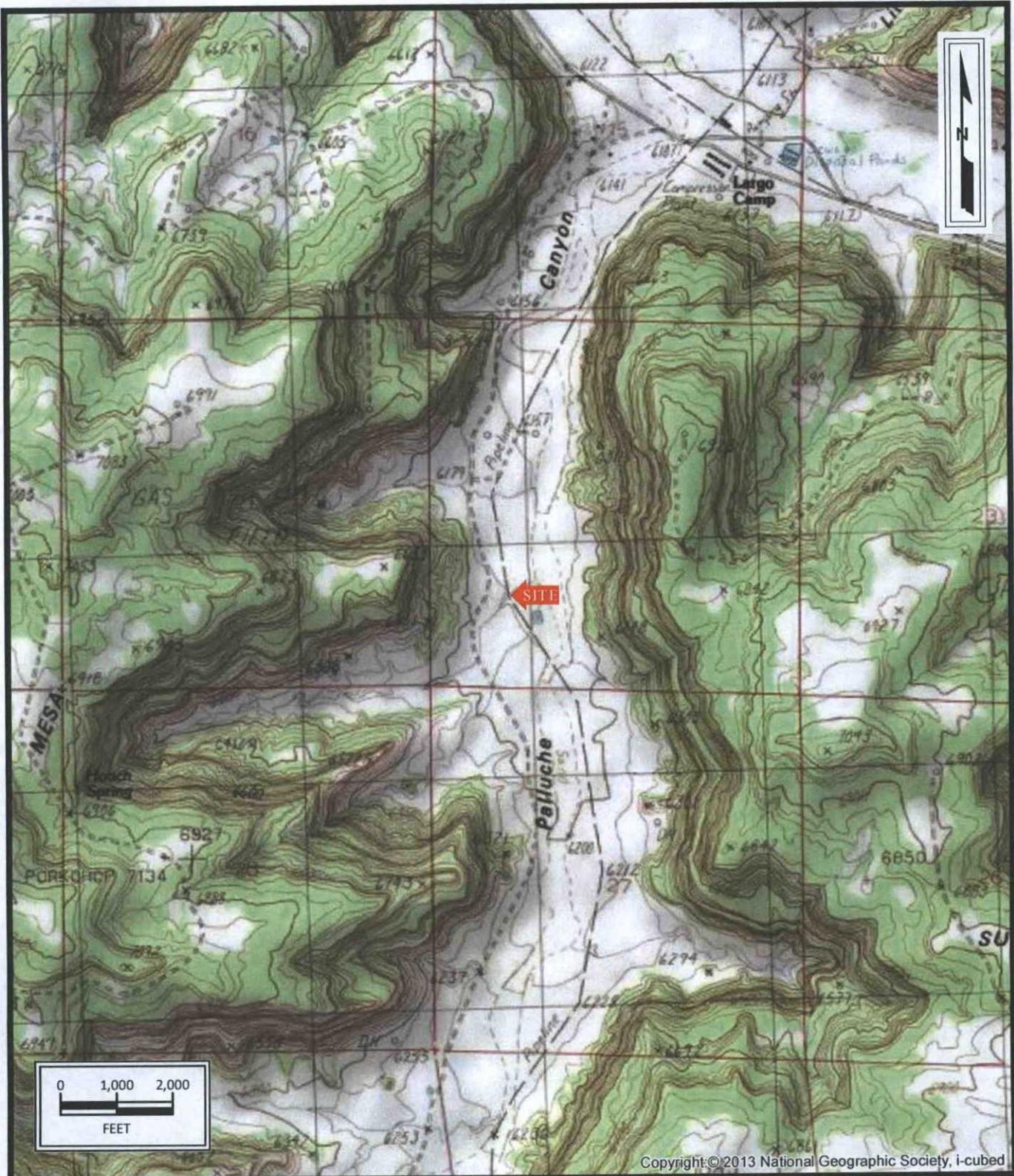
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

APPENDIX A

Figures



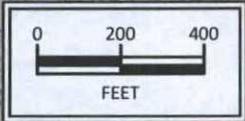
Lateral K-7 (3/23/2015)
 Pipeline Release
 SW1/4 Sec22 T26N R7W
 Rural Rio Arriba County, New Mexico
 36.46854N, 107.56842W

Project No. 7250415005



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
 www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 1
Topographic Map
 Smouse Mesa, NM Quadrangle
 1985



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

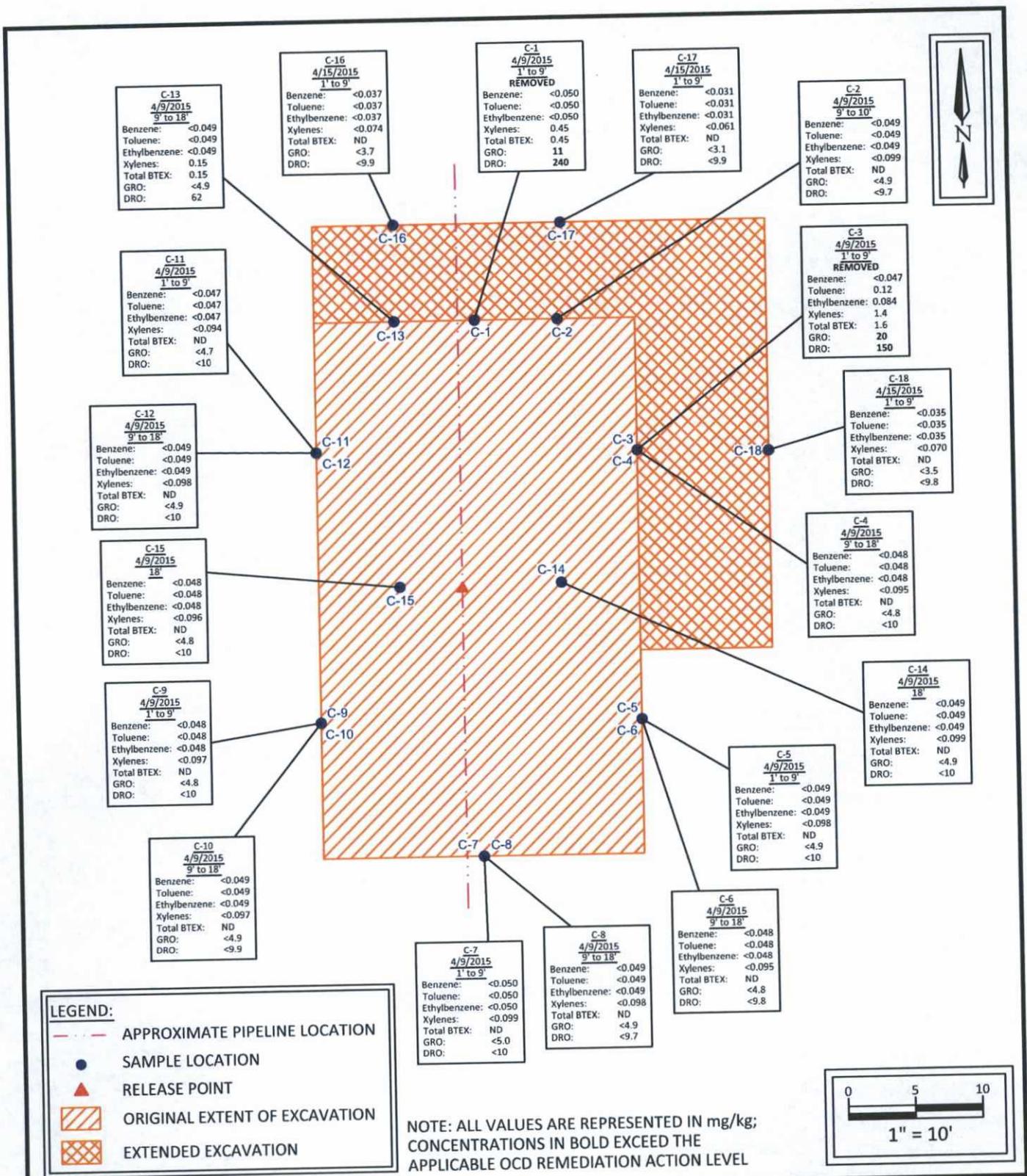
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FIGURE 2
Site Vicinity Map



Lateral K-7 (3/23/2015)
Pipeline Release
 SW1/4 Sec22 T26N R7W
 Rural Rio Arriba County, New Mexico
 36.46854N, 107.56842W
 Project No. 7250415005



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FIGURE 3
Soil Sample Location
and Results



APPENDIX B

Executed C-138 Solid Waste Acceptance Form

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 **97057-0702**
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401
2. Originating Site: Lateral K-7 Pipeline Release <p style="text-align: right; font-size: 1.5em;">April 2015</p>
3. Location of Material (Street Address, City, State or ULSTR): Unit Letter L Section 22 Township 26 North Range 7 West; 36.468542, -107.568427, Rio Arriba County
4. Source and Description of Waste: Source: Natural Gas Gathering Line Description: Hydrocarbon impacted soil associated with a pipeline release. Estimated Volume <u>100</u> (yd ³) / bbls Known Volume (to be entered by the operator at the end of the haul) <u>854</u> (yd ³) / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS I, Thomas Long <i>Thomas Long</i> , representative or authorized agent for Enterprise Products Operating do hereby Generator Signature certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification) <input checked="" type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non- exempt waste. <u>Operator Use Only: Waste Acceptance Frequency</u> <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load <input type="checkbox"/> RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items) <input type="checkbox"/> MSDS Information <input type="checkbox"/> RCRA Hazardous Waste Analysis <input checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS I, Thomas Long <i>Thomas Long</i> 4-8-15, representative for Enterprise Products Operating authorize to complete Generator Signature the required testing/sign the Generator Waste Testing Certification. I, <i>Kendra Runny</i> , representative for <u>Envirotech, Inc.</u> do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. Transporter: To Be Determined Kyvek, Rosenbaum Construction, Crossfire,
OCD Permitted Surface Waste Management Facility Baileys

Name and Facility Permit #: Envirotech Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM
Method of Treatment and/or Disposal:
 Evaporation Injection Treating Plant Landfarm Landfill Other

Waste Acceptance Status:
 APPROVED **DENIED** (Must Be Maintained As Permanent Record)

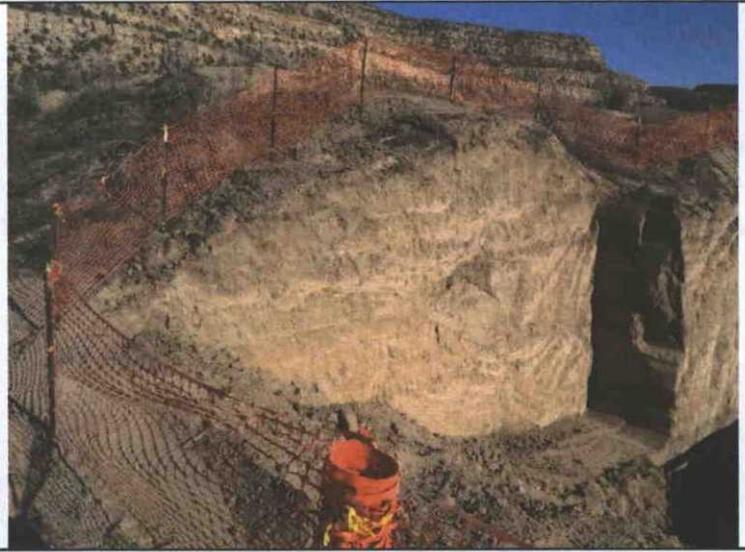
PRINT NAME: Kendra Runny TITLE: waste Coordinator DATE: 4/8/15
SIGNATURE: *Kendra Runny* TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

APPENDIX C

Photographic Documentation

Photograph 1

View of the final excavation, facing southeast.



Photograph 2

View of the final excavation, facing southwest. Soil "wall" beneath the pipeline was removed prior to backfilling the excavation.



Photograph 3

View of the final excavation, facing south. Soil "wall" beneath the pipeline was removed prior to backfilling the excavation.



Photograph 4

View of the partially backfilled excavation and new pipeline section, facing southwest.



Photograph 5

View of the partially backfilled excavation and new pipeline section, facing north.



APPENDIX D

Table



TABLE 1
Lateral K-7 (3/23/2015) Pipeline Release
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			10	NE	NE	NE	50	100	
Stockpile Samples of Soils Removed to Landfarm									
SP-1	4/9/2015	Stockpile	<0.046	<0.046	<0.046	<0.092	ND	7.1	130
SP-2	4/9/2015	Stockpile	<0.047	<0.047	<0.047	0.64	0.64	65	640
Stockpile Samples of Soils Used As Excavation Backfill									
SP-3	4/9/2015	Stockpile	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10
SP-4	4/9/2015	Stockpile	<0.050	<0.050	<0.050	<0.099	ND	<5.0	12
Samples of Soils Removed By Excavation									
C-1	4/9/2015	1 to 9	<0.050	<0.050	<0.050	0.45	0.45	11	240
C-3	4/9/2015	1 to 9	<0.047	0.12	0.084	1.4	1.6	20	150
Excavation Confirmation Samples									
C-2	4/9/2015	9 to 18	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<9.7
C-4	4/9/2015	9 to 18	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<10
C-5	4/9/2015	1 to 9	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10
C-6	4/9/2015	9 to 18	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<9.8
C-7	4/9/2015	1 to 9	<0.050	<0.050	<0.050	<0.099	ND	<5.0	<10
C-8	4/9/2015	9 to 18	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<9.7
C-9	4/9/2015	1 to 9	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10
C-10	4/9/2015	9 to 18	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<9.9
C-11	4/9/2015	1 to 9	<0.047	<0.047	<0.047	<0.094	ND	<4.7	<10
C-12	4/9/2015	9 to 18	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10
C-13	4/9/2015	9 to 18	<0.049	<0.049	<0.049	0.15	0.15	<4.9	62
C-14	4/9/2015	18	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10
C-15	4/9/2015	18	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10
C-16	4/15/2015	1 to 9	<0.037	<0.037	<0.037	<0.074	ND	<3.7	<9.9
C-17	4/15/2015	1 to 9	<0.031	<0.031	<0.031	<0.061	ND	<3.1	<9.9
C-18	4/15/2015	1 to 9	<0.035	<0.035	<0.035	<0.070	ND	<3.5	<9.8

Note: Concentrations in bold and yellow exceed the applicable OCD Remediation Action Level

ND = Not Detected above the Laboratory Reporting Limits

NE = Not established

APPENDIX E

Laboratory Analytical Reports &
Chain of Custody Documentation



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

April 14, 2015

Heather Woods
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (505) 716-2787
FAX

RE: Lateral K-7

OrderNo.: 1504456

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 15 sample(s) on 4/10/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-1

Project: Lateral K-7

Collection Date: 4/9/2015 4:07:00 PM

Lab ID: 1504456-001

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	240	10		mg/Kg	1	4/13/2015 2:43:48 PM	18609
Surr: DNOP	106	63.5-128		%REC	1	4/13/2015 2:43:48 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	11	5.0		mg/Kg	1	4/11/2015 5:25:59 PM	18615
Surr: BFB	144	80-120	S	%REC	1	4/11/2015 5:25:59 PM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/11/2015 5:25:59 PM	18615
Toluene	ND	0.050		mg/Kg	1	4/11/2015 5:25:59 PM	18615
Ethylbenzene	ND	0.050		mg/Kg	1	4/11/2015 5:25:59 PM	18615
Xylenes, Total	0.45	0.10		mg/Kg	1	4/11/2015 5:25:59 PM	18615
Surr: 4-Bromofluorobenzene	115	80-120		%REC	1	4/11/2015 5:25:59 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-2

Project: Lateral K-7

Collection Date: 4/9/2015 2:25:00 PM

Lab ID: 1504456-002

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/13/2015 3:05:10 PM	18609
Surr: DNOP	108	63.5-128		%REC	1	4/13/2015 3:05:10 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/11/2015 5:54:41 PM	18615
Surr: BFB	94.6	80-120		%REC	1	4/11/2015 5:54:41 PM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/11/2015 5:54:41 PM	18615
Toluene	ND	0.049		mg/Kg	1	4/11/2015 5:54:41 PM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/11/2015 5:54:41 PM	18615
Xylenes, Total	ND	0.099		mg/Kg	1	4/11/2015 5:54:41 PM	18615
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	4/11/2015 5:54:41 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 2 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-3

Project: Lateral K-7

Collection Date: 4/9/2015 2:37:00 PM

Lab ID: 1504456-003

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	150	9.7		mg/Kg	1	4/13/2015 3:26:28 PM	18609
Surr: DNOP	116	63.5-128		%REC	1	4/13/2015 3:26:28 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	20	4.7		mg/Kg	1	4/12/2015 12:36:15 AM	18615
Surr: BFB	160	80-120	S	%REC	1	4/12/2015 12:36:15 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	4/12/2015 12:36:15 AM	18615
Toluene	0.12	0.047		mg/Kg	1	4/12/2015 12:36:15 AM	18615
Ethylbenzene	0.084	0.047		mg/Kg	1	4/12/2015 12:36:15 AM	18615
Xylenes, Total	1.4	0.095		mg/Kg	1	4/12/2015 12:36:15 AM	18615
Surr: 4-Bromofluorobenzene	112	80-120		%REC	1	4/12/2015 12:36:15 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 3 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-4

Project: Lateral K-7

Collection Date: 4/9/2015 2:24:00 PM

Lab ID: 1504456-004

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 3:47:57 PM	18609
Surr: DNOP	77.7	63.5-128		%REC	1	4/13/2015 3:47:57 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2015 1:04:52 AM	18615
Surr: BFB	91.6	80-120		%REC	1	4/12/2015 1:04:52 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/12/2015 1:04:52 AM	18615
Toluene	ND	0.048		mg/Kg	1	4/12/2015 1:04:52 AM	18615
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2015 1:04:52 AM	18615
Xylenes, Total	ND	0.095		mg/Kg	1	4/12/2015 1:04:52 AM	18615
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	4/12/2015 1:04:52 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 4 of 18
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-5

Project: Lateral K-7

Collection Date: 4/9/2015 2:43:00 PM

Lab ID: 1504456-005

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 4:09:23 PM	18609
Surr: DNOP	108	63.5-128		%REC	1	4/13/2015 4:09:23 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/12/2015 1:33:34 AM	18615
Surr: BFB	91.1	80-120		%REC	1	4/12/2015 1:33:34 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/12/2015 1:33:34 AM	18615
Toluene	ND	0.049		mg/Kg	1	4/12/2015 1:33:34 AM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/12/2015 1:33:34 AM	18615
Xylenes, Total	ND	0.098		mg/Kg	1	4/12/2015 1:33:34 AM	18615
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	4/12/2015 1:33:34 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 5 of 18
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-6

Project: Lateral K-7

Collection Date: 4/9/2015 2:40:00 PM

Lab ID: 1504456-006

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/13/2015 4:30:53 PM	18609
Surr: DNOP	92.6	63.5-128		%REC	1	4/13/2015 4:30:53 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2015 2:02:13 AM	18615
Surr: BFB	90.5	80-120		%REC	1	4/12/2015 2:02:13 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/12/2015 2:02:13 AM	18615
Toluene	ND	0.048		mg/Kg	1	4/12/2015 2:02:13 AM	18615
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2015 2:02:13 AM	18615
Xylenes, Total	ND	0.095		mg/Kg	1	4/12/2015 2:02:13 AM	18615
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/12/2015 2:02:13 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 6 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-7

Project: Lateral K-7

Collection Date: 4/9/2015 3:44:00 PM

Lab ID: 1504456-007

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 4:52:11 PM	18609
Surr: DNOP	93.9	63.5-128		%REC	1	4/13/2015 4:52:11 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/12/2015 2:30:50 AM	18615
Surr: BFB	89.0	80-120		%REC	1	4/12/2015 2:30:50 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/12/2015 2:30:50 AM	18615
Toluene	ND	0.050		mg/Kg	1	4/12/2015 2:30:50 AM	18615
Ethylbenzene	ND	0.050		mg/Kg	1	4/12/2015 2:30:50 AM	18615
Xylenes, Total	ND	0.099		mg/Kg	1	4/12/2015 2:30:50 AM	18615
Surr: 4-Bromofluorobenzene	98.8	80-120		%REC	1	4/12/2015 2:30:50 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-8

Project: Lateral K-7

Collection Date: 4/9/2015 3:42:00 PM

Lab ID: 1504456-008

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/13/2015 5:13:34 PM	18609
Surr: DNOP	85.8	63.5-128		%REC	1	4/13/2015 5:13:34 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/12/2015 2:59:26 AM	18615
Surr: BFB	89.8	80-120		%REC	1	4/12/2015 2:59:26 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/12/2015 2:59:26 AM	18615
Toluene	ND	0.049		mg/Kg	1	4/12/2015 2:59:26 AM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/12/2015 2:59:26 AM	18615
Xylenes, Total	ND	0.098		mg/Kg	1	4/12/2015 2:59:26 AM	18615
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	4/12/2015 2:59:26 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 8 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-9

Project: Lateral K-7

Collection Date: 4/9/2015 3:15:00 PM

Lab ID: 1504456-009

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 5:34:56 PM	18609
Surr: DNOP	85.6	63.5-128		%REC	1	4/13/2015 5:34:56 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/12/2015 3:28:01 AM	18615
Surr: BFB	90.5	80-120		%REC	1	4/12/2015 3:28:01 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/12/2015 3:28:01 AM	18615
Toluene	ND	0.048		mg/Kg	1	4/12/2015 3:28:01 AM	18615
Ethylbenzene	ND	0.048		mg/Kg	1	4/12/2015 3:28:01 AM	18615
Xylenes, Total	ND	0.097		mg/Kg	1	4/12/2015 3:28:01 AM	18615
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/12/2015 3:28:01 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 9 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-10

Project: Lateral K-7

Collection Date: 4/9/2015 3:28:00 PM

Lab ID: 1504456-010

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/13/2015 5:56:23 PM	18609
Surr: DNOP	82.6	63.5-128		%REC	1	4/13/2015 5:56:23 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/12/2015 3:56:42 AM	18615
Surr: BFB	90.0	80-120		%REC	1	4/12/2015 3:56:42 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/12/2015 3:56:42 AM	18615
Toluene	ND	0.049		mg/Kg	1	4/12/2015 3:56:42 AM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/12/2015 3:56:42 AM	18615
Xylenes, Total	ND	0.097		mg/Kg	1	4/12/2015 3:56:42 AM	18615
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	4/12/2015 3:56:42 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 10 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-11

Project: Lateral K-7

Collection Date: 4/9/2015 3:21:00 PM

Lab ID: 1504456-011

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 6:17:40 PM	18609
Surr: DNOP	90.2	63.5-128		%REC	1	4/13/2015 6:17:40 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/12/2015 4:25:23 AM	18615
Surr: BFB	89.4	80-120		%REC	1	4/12/2015 4:25:23 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	4/12/2015 4:25:23 AM	18615
Toluene	ND	0.047		mg/Kg	1	4/12/2015 4:25:23 AM	18615
Ethylbenzene	ND	0.047		mg/Kg	1	4/12/2015 4:25:23 AM	18615
Xylenes, Total	ND	0.094		mg/Kg	1	4/12/2015 4:25:23 AM	18615
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	4/12/2015 4:25:23 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1504456
 Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-12

Project: Lateral K-7

Collection Date: 4/9/2015 3:24:00 PM

Lab ID: 1504456-012

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 6:39:09 PM	18609
Surr: DNOP	89.0	63.5-128		%REC	1	4/13/2015 6:39:09 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/12/2015 4:54:01 AM	18615
Surr: BFB	91.0	80-120		%REC	1	4/12/2015 4:54:01 AM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/12/2015 4:54:01 AM	18615
Toluene	ND	0.049		mg/Kg	1	4/12/2015 4:54:01 AM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/12/2015 4:54:01 AM	18615
Xylenes, Total	ND	0.098		mg/Kg	1	4/12/2015 4:54:01 AM	18615
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	4/12/2015 4:54:01 AM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 12 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-13

Project: Lateral K-7

Collection Date: 4/9/2015 4:05:00 PM

Lab ID: 1504456-013

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	62	10		mg/Kg	1	4/13/2015 7:00:38 PM	18609
Surr: DNOP	81.9	63.5-128		%REC	1	4/13/2015 7:00:38 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/13/2015 3:01:45 PM	18615
Surr: BFB	105	80-120		%REC	1	4/13/2015 3:01:45 PM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/13/2015 3:01:45 PM	18615
Toluene	ND	0.049		mg/Kg	1	4/13/2015 3:01:45 PM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/13/2015 3:01:45 PM	18615
Xylenes, Total	0.15	0.098		mg/Kg	1	4/13/2015 3:01:45 PM	18615
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	4/13/2015 3:01:45 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 13 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-14

Project: Lateral K-7

Collection Date: 4/9/2015 2:20:00 PM

Lab ID: 1504456-014

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 7:22:11 PM	18609
Surr: DNOP	80.5	63.5-128		%REC	1	4/13/2015 7:22:11 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/13/2015 3:30:28 PM	18615
Surr: BFB	89.5	80-120		%REC	1	4/13/2015 3:30:28 PM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	4/13/2015 3:30:28 PM	18615
Toluene	ND	0.049		mg/Kg	1	4/13/2015 3:30:28 PM	18615
Ethylbenzene	ND	0.049		mg/Kg	1	4/13/2015 3:30:28 PM	18615
Xylenes, Total	ND	0.099		mg/Kg	1	4/13/2015 3:30:28 PM	18615
Surr: 4-Bromofluorobenzene	105	80-120		%REC	1	4/13/2015 3:30:28 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 14 of 18
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1504456

Date Reported: 4/14/2015

CLIENT: APEX TITAN

Client Sample ID: C-15

Project: Lateral K-7

Collection Date: 4/9/2015 3:11:00 PM

Lab ID: 1504456-015

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/13/2015 7:43:38 PM	18609
Surr: DNOP	79.6	63.5-128		%REC	1	4/13/2015 7:43:38 PM	18609
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/13/2015 4:28:37 PM	18615
Surr: BFB	92.8	80-120		%REC	1	4/13/2015 4:28:37 PM	18615
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/13/2015 4:28:37 PM	18615
Toluene	ND	0.048		mg/Kg	1	4/13/2015 4:28:37 PM	18615
Ethylbenzene	ND	0.048		mg/Kg	1	4/13/2015 4:28:37 PM	18615
Xylenes, Total	ND	0.096		mg/Kg	1	4/13/2015 4:28:37 PM	18615
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	4/13/2015 4:28:37 PM	18615

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504456

14-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	MB-18609	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	18609	RunNo:	25459					
Prep Date:	4/10/2015	Analysis Date:	4/13/2015	SeqNo:	753898	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	12		10.00		123	63.5	128			

Sample ID	LCS-18609	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	18609	RunNo:	25459					
Prep Date:	4/10/2015	Analysis Date:	4/13/2015	SeqNo:	754238	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.8	67.8	130			
Surr: DNOP	5.6		5.000		113	63.5	128			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1504456

14-Apr-15

Client: APEX TITAN
Project: Lateral K-7

Sample ID	MB-18613	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18613	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753290	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	890		1000		88.8	80	120			

Sample ID	LCS-18613	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18613	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753291	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.3	80	120			

Sample ID	MB-18615	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18615	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753308	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	910		1000		90.7	80	120			

Sample ID	LCS-18615	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18615	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753309	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	64	130			
Surr: BFB	980		1000		97.8	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504456
14-Apr-15

Client: APEX TITAN
Project: Lateral K-7

Sample ID	MB-18613	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18613	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753332	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	LCS-18613	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18613	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753333	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID	MB-18615	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18615	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753339	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			

Sample ID	LCS-18615	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18615	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753340	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	76.6	128			
Toluene	0.97	0.050	1.000	0	97.5	75	124			
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	106	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID	LCS-18615	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18615	RunNo:	25449					
Prep Date:	4/10/2015	Analysis Date:	4/11/2015	SeqNo:	753340	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	106	76.6	128			
Toluene	0.97	0.050	1.000	0	97.5	75	124			
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	106	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1504456

RcptNo: 1

Received by/date: ~~AK~~ 04/10/15

Logged By: Lindsay Mangin 4/10/2015 6:00:00 AM *Judy Mangin*

Completed By: Lindsay Mangin 4/10/2015 8:25:07 AM *Judy Mangin*

Reviewed By: AOJ 04/10/15

Chain of Custody

- Custody seals intact on sample bottles? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- VOA vials have zero headspace? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels? Yes No
- (Note discrepancies on chain of custody)
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met? Yes No
- (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 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: _____

- Additional remarks

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD



APEX
Office Location Aztec, NM

Laboratory: Hall Environmental
Address: Albuquerque, NM

Contact: Andy Freeman
Phone: _____

Project Manager Heather Woods PO/SO #: Direct Bill to Enterprise

ANALYSIS REQUESTED

8021 BTEX
8015 TPH GROY/DEQ

Lab use only
Due Date: _____

Temp. of coolers when received (C°): 2.1

1 2 3 4 5

Page 1 of 2

Sampler's Name
Heather Woods

Sampler's Signature
Heather M. Woods

Proj. No.
7250415005

Project Name
Lateral K-7

No/Type of Containers

Matrix	Date	Time	Co o l e d	Gr a b	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1 L	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)	
S	4/9/15	1607			C-1						1	X	X	1504456 -001
S	4/9/15	1425			C-2						1	X	X	-002
S	4/9/15	1437			C-3						1	X	X	-003
S	4/9/15	1424			C-4						1	X	X	-004
S	4/9/15	1443			C-5						1	X	X	-005
S	4/9/15	1440			C-6						1	X	X	-006
S	4/9/15	1544			C-7						1	X	X	-007
S	4/9/15	1542			C-8						1	X	X	-008
S	4/9/15	1515			C-9						1	X	X	-009
S	4/9/15	1528			C-10						1	X	X	-010

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>Heather M. Woods</u>	Date: <u>4/9/15</u> Time: <u>1944</u>	Received by (Signature) <u>[Signature]</u>	Date: <u>4/10/15</u> Time: <u>0600</u>
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____

NOTES:
Direct Bill to Enterprise
Attn: Tom Long / Johnny Sandoval
Non-AFE: N20591

Matrix Container WW - Wastewater VOA - 40 ml vial W - Water A/G - Amber / Or Glass 1 Liter S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sludge O - Oil P/O - Plastic or other

CHAIN OF CUSTODY RECORD

 APEX Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u>		ANALYSIS REQUESTED <div style="border: 1px solid black; padding: 5px; transform: rotate(-90deg); display: inline-block;"> 8021 BTEX 8015 TPH Gre/Deo </div>										Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>2.1</u>					
		Contact: <u>Andy Freeman</u> Phone: _____												1 2 3 4 5 Page <u>2</u> of <u>2</u>					
Project Manager <u>Heather Woods</u>		PO/SO #: <u>Direct Bill to Enterprise</u>		Sampler's Name <u>Heather Woods</u>		Sampler's Signature <u>Heath M. Woods</u>													
Proj. No. <u>7230415005</u>		Project Name <u>Lateral K-7</u>				No/Type of Containers													
Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 L.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)						
S	4/9/15	1521			C-11						1		X	X	1504456-011				
S	4/9/15	1524			C-12						1		X	X	-012				
S	4/9/15	1605			C-13						1		X	X	-013				
S	4/9/15	1420			C-14						1		X	X	-014				
S	4/9/15	1511			C-15						1		X	X	-015				
NPS HW																			
Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush																			
Relinquished by (Signature)		Date:		Time:		Received by: (Signature)		Date:		Time:		NOTES: Direct Bill to Enterprise Attn: Tom Long / Johnny Sandoval Non-AFE: N 20591							
Relinquished by (Signature)		Date:		Time:		Received by: (Signature)		Date:		Time:									
Relinquished by (Signature)		Date:		Time:		Received by: (Signature)		Date:		Time:									
Relinquished by (Signature)		Date:		Time:		Received by: (Signature)		Date:		Time:									

Matrix Container WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - sudge O - Oil
 VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other



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

April 17, 2015
Heather Woods
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (505) 716-2787
FAX

RE: Lateral K-7

OrderNo.: 1504687

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 3 sample(s) on 4/16/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1504687

Date Reported: 4/17/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-16

Project: Lateral K-7

Collection Date: 4/15/2015 4:40:00 PM

Lab ID: 1504687-001

Matrix: MEOH (SOIL)

Received Date: 4/16/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/16/2015 9:54:57 AM	18708
Surr: DNOP	78.9	57.9-140		%REC	1	4/16/2015 9:54:57 AM	18708
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	4/16/2015 11:19:17 AM	18710
Surr: BFB	91.1	80-120		%REC	1	4/16/2015 11:19:17 AM	18710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.037		mg/Kg	1	4/16/2015 11:19:17 AM	18710
Toluene	ND	0.037		mg/Kg	1	4/16/2015 11:19:17 AM	18710
Ethylbenzene	ND	0.037		mg/Kg	1	4/16/2015 11:19:17 AM	18710
Xylenes, Total	ND	0.074		mg/Kg	1	4/16/2015 11:19:17 AM	18710
Surr: 4-Bromofluorobenzene	96.8	80-120		%REC	1	4/16/2015 11:19:17 AM	18710

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-17

Project: Lateral K-7

Collection Date: 4/15/2015 2:40:00 PM

Lab ID: 1504687-002

Matrix: MEOH (SOIL)

Received Date: 4/16/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	4/16/2015 10:16:30 AM	18708
Surr: DNOP	86.2	57.9-140		%REC	1	4/16/2015 10:16:30 AM	18708
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	4/16/2015 11:48:06 AM	18710
Surr: BFB	89.4	80-120		%REC	1	4/16/2015 11:48:06 AM	18710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	4/16/2015 11:48:06 AM	18710
Toluene	ND	0.031		mg/Kg	1	4/16/2015 11:48:06 AM	18710
Ethylbenzene	ND	0.031		mg/Kg	1	4/16/2015 11:48:06 AM	18710
Xylenes, Total	ND	0.061		mg/Kg	1	4/16/2015 11:48:06 AM	18710
Surr: 4-Bromofluorobenzene	96.3	80-120		%REC	1	4/16/2015 11:48:06 AM	18710

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 2 of 6
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1504687

Date Reported: 4/17/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: C-18

Project: Lateral K-7

Collection Date: 4/15/2015 3:45:00 PM

Lab ID: 1504687-003

Matrix: MEOH (SOIL)

Received Date: 4/16/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/16/2015 10:37:57 AM	18708
Surr: DNOP	82.2	57.9-140		%REC	1	4/16/2015 10:37:57 AM	18708
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	4/16/2015 12:16:53 PM	18710
Surr: BFB	87.3	80-120		%REC	1	4/16/2015 12:16:53 PM	18710
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.035		mg/Kg	1	4/16/2015 12:16:53 PM	18710
Toluene	ND	0.035		mg/Kg	1	4/16/2015 12:16:53 PM	18710
Ethylbenzene	ND	0.035		mg/Kg	1	4/16/2015 12:16:53 PM	18710
Xylenes, Total	ND	0.070		mg/Kg	1	4/16/2015 12:16:53 PM	18710
Surr: 4-Bromofluorobenzene	93.6	80-120		%REC	1	4/16/2015 12:16:53 PM	18710

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504687

17-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	MB-18708	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	18708	RunNo:	25548					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	756791	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.9		10.00		88.9	63.5	128			

Sample ID	LCS-18708	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	18708	RunNo:	25548					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	756805	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.0	67.8	130			
Surr: DNOP	4.7		5.000		93.5	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504687

17-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	MB-18710	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757273	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	930		1000		93.2	80	120			

Sample ID	LCS-18710	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757274	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	64	130			
Surr: BFB	960		1000		95.8	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 1504687
 17-Apr-15

Client: APEX TITAN
Project: Lateral K-7

Sample ID	MB-18710	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757283	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			

Sample ID	LCS-18710	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757284	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	109	76.6	128			
Toluene	1.0	0.050	1.000	0	102	75	124			
Ethylbenzene	1.1	0.050	1.000	0	107	79.5	126			
Xylenes, Total	3.2	0.10	3.000	0	106	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1504687

RcptNo: 1

Received by/date: Ag 04/16/15

Logged By: Ashley Gallegos 4/16/2015 8:00:00 AM Ag

Completed By: Ashley Gallegos 4/16/2015 8:24:56 AM Ag

Reviewed By: AS 04/16/15

Chain of Custody

- Custody seals intact on sample bottles? Yes No Not Present
- Is Chain of Custody complete? Yes No Not Present
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes No NA
- Were all samples received at a temperature of >0° C to 6.0° C Yes No NA
- Sample(s) in proper container(s)? Yes No
- Sufficient sample volume for indicated test(s)? Yes No
- Are samples (except VOA and ONG) properly preserved? Yes No
- Was preservative added to bottles? Yes No NA
- VOA vials have zero headspace? Yes No No VOA Vials
- Were any sample containers received broken? Yes No
- Does paperwork match bottle labels? Yes No
- (Note discrepancies on chain of custody)
- Are matrices correctly identified on Chain of Custody? Yes No
- Is it clear what analyses were requested? Yes No
- Were all holding times able to be met? Yes No
- (If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler Information

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

Chain-of-Custody Record

Client: Apex TITAN Inc

Mailing Address: Albuquerque, NM

Phone #:

Email or Fax#:

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation:
 NELAP Other _____

EDD (Type) _____

Turn-Around Time:
 Standard Rush Same Day

Project Name: Lateral K-7

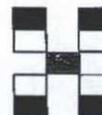
Project #: 7250415005

Project Manager: Heather Woods

Sampler: Heather Woods

On Ice: Yes No

Sample Temperature: 0



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MPO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	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)
1/5/15	1640	Soil	C-16	MEOH Kit / 4-02	MEOH / -	-001	X	X										
1/5/15	1440	Soil	C-17	MEOH Kit / 4-02	MEOH / -	-002	X	X										
1/5/15	1545	Soil	C-18	MEOH Kit / 4-02	MEOH / -	-003	X	X										
RESERVED																		

Date: 1/5/15 Time: 1945 Relinquished by: Heather M. Woods

Date: 04/16/15 Time: 0800 Received by: Ashley McAllister

Remarks: Direct Bill to Enterprise
Attn: Tom Long / Johnny Sandoval
Non-AFE: N20591

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.



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

April 22, 2015

Heather Woods
APEX TITAN
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (505) 716-2787
FAX

RE: Lateral K-7

OrderNo.: 1504521

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/10/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
 Project: Lateral K-7
 Lab ID: 1504521-001

Client Sample ID: SP-1
 Collection Date: 4/9/2015 3:49:00 PM
 Received Date: 4/10/2015 6:00:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	130	9.7		mg/Kg	1	4/14/2015 2:49:08 PM	18641
Surr: DNOP	106	63.5-128		%REC	1	4/14/2015 2:49:08 PM	18641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	7.1	4.6		mg/Kg	1	4/16/2015 11:45:34 PM	18657
Surr: BFB	144	80-120	S	%REC	1	4/16/2015 11:45:34 PM	18657
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.046		mg/Kg	1	4/16/2015 12:17:42 AM	18657
Toluene	ND	0.046		mg/Kg	1	4/16/2015 12:17:42 AM	18657
Ethylbenzene	ND	0.046		mg/Kg	1	4/16/2015 12:17:42 AM	18657
Xylenes, Total	ND	0.092		mg/Kg	1	4/16/2015 12:17:42 AM	18657
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	4/16/2015 12:17:42 AM	18657

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 8
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
 Lab Order 1504521
 Date Reported: 4/22/2015

CLIENT: APEX TITAN
 Project: Lateral K-7
 Lab ID: 1504521-002

Client Sample ID: SP-2
 Collection Date: 4/9/2015 3:54:00 PM
 Received Date: 4/10/2015 6:00:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	640	10		mg/Kg	1	4/14/2015 4:49:07 PM	18641
Surr: DNOP	117	63.5-128		%REC	1	4/14/2015 4:49:07 PM	18641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	65	23		mg/Kg	5	4/17/2015 12:14:19 AM	18657
Surr: BFB	172	80-120	S	%REC	5	4/17/2015 12:14:19 AM	18657
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.047		mg/Kg	1	4/16/2015 12:46:23 AM	18657
Toluene	ND	0.047		mg/Kg	1	4/16/2015 12:46:23 AM	18657
Ethylbenzene	ND	0.047		mg/Kg	1	4/16/2015 12:46:23 AM	18657
Xylenes, Total	0.64	0.093		mg/Kg	1	4/16/2015 12:46:23 AM	18657
Surr: 4-Bromofluorobenzene	138	80-120	S	%REC	1	4/16/2015 12:46:23 AM	18657

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1504521

Date Reported: 4/22/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Client Sample ID: SP-3

Project: Lateral K-7

Collection Date: 4/9/2015 3:59:00 PM

Lab ID: 1504521-003

Matrix: SOIL

Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/14/2015 5:10:43 PM	18641
Surr: DNOP	110	63.5-128		%REC	1	4/14/2015 5:10:43 PM	18641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/17/2015 12:43:02 AM	18657
Surr: BFB	93.5	80-120		%REC	1	4/17/2015 12:43:02 AM	18657
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	4/16/2015 1:15:01 AM	18657
Toluene	ND	0.048		mg/Kg	1	4/16/2015 1:15:01 AM	18657
Ethylbenzene	ND	0.048		mg/Kg	1	4/16/2015 1:15:01 AM	18657
Xylenes, Total	ND	0.096		mg/Kg	1	4/16/2015 1:15:01 AM	18657
Surr: 4-Bromofluorobenzene	90.8	80-120		%REC	1	4/16/2015 1:15:01 AM	18657

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN
 Project: Lateral K-7
 Lab ID: 1504521-004

Client Sample ID: SP-4
 Collection Date: 4/9/2015 4:12:00 PM
 Received Date: 4/10/2015 6:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	12	10		mg/Kg	1	4/14/2015 5:32:06 PM	18641
Surr: DNOP	112	63.5-128		%REC	1	4/14/2015 5:32:06 PM	18641
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/17/2015 1:11:45 AM	18657
Surr: BFB	88.7	80-120		%REC	1	4/17/2015 1:11:45 AM	18657
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/16/2015 1:43:42 AM	18657
Toluene	ND	0.050		mg/Kg	1	4/16/2015 1:43:42 AM	18657
Ethylbenzene	ND	0.050		mg/Kg	1	4/16/2015 1:43:42 AM	18657
Xylenes, Total	ND	0.099		mg/Kg	1	4/16/2015 1:43:42 AM	18657
Surr: 4-Bromofluorobenzene	93.1	80-120		%REC	1	4/16/2015 1:43:42 AM	18657

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504521

22-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	MB-18641	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	18641	RunNo:	25489					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	754938	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.9		10.00		98.8	63.5	128			

Sample ID	LCS-18641	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	18641	RunNo:	25489					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	754939	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.0	67.8	130			
Surr: DNOP	4.9		5.000		97.6	63.5	128			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504521

22-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	MB-18665	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18665	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755452	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	870		1000		87.2	80	120			

Sample ID	LCS-18665	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18665	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755453	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		96.3	80	120			

Sample ID	MB-18657	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18657	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755490	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	900		1000		89.7	80	120			

Sample ID	LCS-18657	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18657	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755491	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	64	130			
Surr: BFB	970		1000		97.0	80	120			

Sample ID	MB-18710	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757273	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	930		1000		93.2	80	120			

Sample ID	LCS-18710	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757274	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	960		1000		95.8	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504521

22-Apr-15

Client: APEX TITAN
Project: Lateral K-7

Sample ID	MB-18665	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18665	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755514	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.98		1.000		97.8	80	120			

Sample ID	LCS-18665	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18665	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755515	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Sample ID	MB-18657	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18657	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755526	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	LCS-18657	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18657	RunNo:	25496					
Prep Date:	4/13/2015	Analysis Date:	4/14/2015	SeqNo:	755527	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	1.1	0.050	1.000	0	113	76.6	128			
Toluene	1.0	0.050	1.000	0	103	75	124			
Ethylbenzene	1.1	0.050	1.000	0	110	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	110	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		112	80	120			

Sample ID	MB-18710	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757283	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Surr: 4-Bromofluorobenzene	0.92		1.000		92.4	80	120			
----------------------------	------	--	-------	--	------	----	-----	--	--	--

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1504521

22-Apr-15

Client: APEX TITAN

Project: Lateral K-7

Sample ID	LCS-18710	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	18710	RunNo:	25555					
Prep Date:	4/15/2015	Analysis Date:	4/16/2015	SeqNo:	757284	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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



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

Sample Log-In Check List

Client Name: **APEX AZTEC**

Work Order Number: **1504521**

RcptNo: **1**

Received by/date: *[Signature]*

Logged By: **Ashley Gallegos**

4/10/2015 8:00:00 AM

Completed By: **Ashley Gallegos**

4/13/2015 7:37:57 AM

Reviewed By: *TO*

04/13/15

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Yes			

CHAIN OF CUSTODY RECORD



Office Location Aztec, NM

Laboratory: Hall Environmental

Address: Albuquerque, NM

Contact: Andy Freeman

Phone: _____

PO/SO #: Direct Bill to Enterprise

Project Manager Heather Woods

Sampler's Name

Sampler's Signature

Heather Woods

Heather M. Woods

Proj. No. 72504145005

Project Name Lateral K-7 per Heather Woods

Matrix	Date	Time	COED	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	AG 1L	250 ml	Glass Jar	P/O	ANALYSIS REQUESTED	Lab Sample ID (Lab Use Only)
S	4/9/15	1549			SP-1								0021 BTEX 0015 TPH GRO/DEO	1504521-001
S	4/9/15	1554			SP-2									-002
S	4/9/15	1559			SP-3									-003
S	4/9/15	1612			SP-4									-004
None														

Turn around time Normal 25% Rush 50% Rush 100% Rush

Relinquished by (Signature) <u>Heather M. Woods</u>	Date: <u>4/9/15</u> Time: <u>1944</u>	Received by (Signature) <u>[Signature]</u>	Date: <u>04/09/15</u> Time: <u>0600</u>
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____
Relinquished by (Signature)	Date: _____ Time: _____	Received by (Signature)	Date: _____ Time: _____

NOTES:
 Direct Bill to Enterprise
 Attn: Tom Long / Johnny Sandoval
 Non-AFE: N20591

Matrix Container: WW - Wastewater, VOA - 40 ml vial, W - Water, S - Soil, SD - Solid, L - Liquid, A - Air Bag, C - Charcoal tube, SL - sludge, O - Oil, AG - Amber / Or Glass 1 Liter, 250 ml - Glass wide mouth, P/O - Plastic or other

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral 2C-85	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: Jicarilla Apache Tribe	Mineral Owner: Jicarilla Apache Tribe	API No.
---------------------------------------	---------------------------------------	---------

LOCATION OF RELEASE

Unit Letter O	Section 4	Township 23N	Range 4W	Feet from the 1593	North/South Line <u>South</u>	Feet from the 2450	East/West Line <u>East</u>	County Rio Arriba
------------------	--------------	-----------------	-------------	--------------------------	-------------------------------------	--------------------------	----------------------------------	----------------------

Latitude 36.249718 Longitude 107.25614

OIL CONS. DIV DIST. 3

JUL 27 2015

NATURE OF RELEASE

Type of Release: Natural Gas and Condensate	Volume of Release: 18.68 MCF; Estimated 5-7 bbls. of Condensate	Volume Recovered: None
Source of Release: Internal corrosion	Date and Hour of Occurrence: 6/3/2015 @ 11:20 a.m.	Date and Hour of Discovery: 6/3/2015 @ 12:00 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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: On July 3, 2015, during routine operations a field operation technician identified a natural gas release on the Lateral 2C-85 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs/remediation were completed on June 23, 2015.

Describe Area Affected and Cleanup Action Taken.* The contaminant mass was removed by mechanical excavation. The final excavation measured approximately 133 feet long by 18 feet wide ranging from 7 to 9 feet deep. Approximately 180 cubic yards of hydrocarbon impacted soil were excavated from the area of the identify release point and transported to a New Mexico Oil Conservation approved land farm facility. A third party corrective action report is included with this "Final" C-141.

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>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 8/12/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7-22-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1517349852

55

Enterprise Products
Lateral 2C-85 Pipeline Release
Latitude North 36.249718°, Longitude West -107.258614°
SW/SE (Unit O), Section 4, T23N, R4W
Rio Arriba County, New Mexico
July 6, 2015



Submitted To:
Enterprise Products
Field Environmental-San Juan Basin
614 Reilly Avenue
Farmington, NM 87401

Submitted By:
Souder, Miller & Associates
401 West Broadway
Farmington, NM 87401
(505)325-7535

OIL CONS. DIV DIST. 3
JUL 27 2015



Table of Contents

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3.0	Site Ranking and Land Jurisdiction	2
4.0	Summary of Field Activities	2
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6.0	Closure and Limitations.....	3

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Figure 1: Vicinity Map

Figure 2: Site Map

Figure 3: Soil Contaminant Concentration Map

Tables:

Table 1: Release Information

Table 2: Site Ranking

Table 3: Summary of Laboratory Analysis

Appendices:

Appendix A: Photographic Documentation

Appendix B: Soil Disposal Documentation

Appendix C: Laboratory Analytical Reports

1.0 Executive Summary

From June 4, through June 23, 2015, Souder, Miller & Associates (SMA) responded to oversee the excavation of a hydrocarbon release associated with the Lateral 2C-85 natural gas pipeline. The release was initially reported to SMA on June 3, 2015 and is a result of internal corrosion of the eight-inch natural gas pipeline. The table below summarizes information about the pipeline remediation activities.

TABLE 1: RELEASE INFORMATION					
Name	Lateral 2C-85 Pipeline Release				
Location	Latitude/Longitude		Section, Township, Range		
		36.249718°	-107.258614°	SW/SE (Unit O)	Section 4
Date Reported to SMA	June 3, 2015				
Reported by	Tom Long				
Land Owner	Jicarilla Apache Nation				
Reported To	NM Oil Conservation Division (NMOCD) Jicarilla Apache Environmental Protection Office (JAEPO)				
Diameter of Pipeline	8 inches				
Source of Release	Internal Corrosion				
Release Contents	Natural Gas Liquids/Condensate				
Release Volume	Unknown				
Nearest Waterway	Located about 300' east of an unnamed wash				
Depth to Groundwater	Estimated to be between 50 and 100 feet				
Nearest Domestic Water Source	Greater than 1,000 feet				
NMOCD Ranking	20				
SMA Response Dates	June 4, 16,17,23, 2015				
Subcontractors	West States Energy Contractors				
Disposal Facility	T-n-T Environmental				
Yd ³ Contaminated Soil Excavated and Disposed	180 (Reported on Completed C-138)				

2.0 Introduction

On behalf of Enterprise Products Operating, LLC. (Enterprise), SMA has prepared this report that describes remediation of a hydrocarbon release associated with the Lateral 2C-85 pipeline release site. The site is located in SW/SE (Unit O), Section 4, T23N, R4W, 36.249718°, -107.258614°, Rio Arriba County, New Mexico, on land owned by the Jicarilla Apache Nation. Figure 1 illustrates the vicinity and location of the site.

3.0 Site Ranking and Land Jurisdiction

The release site is located near an unnamed ephemeral tributary on land owned by the Jicarilla Apache Nation and governed by the Jicarilla Apache Environmental Protection Office (JAEPO). The site is at an elevation of approximately 7,176 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be between 50 and 100 feet below ground surface (bgs).

SMA searched the New Mexico Office of the State Engineer online water well data base for water wells in the vicinity of the release. No water wells were located in Section 4 or any adjacent sections. The physical location of this release is within the jurisdiction of JAEPO. This release location has been assigned an OCD ranking of 20, which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm total benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 2 illustrates site ranking rationale.

4.0 Summary of Field Activities

On June 4, 2015, SMA responded to a hydrocarbon release associated with the Lateral 2C-85 pipeline. West States Energy Contractors (WSEC) was on site with a rubber tired backhoe excavating the pipeline for inspection and repair. The release was determined to be a result of internal corrosion of the 8" diameter pipe, and a clamp was initially installed by WSEC. The faulty section of pipe was later replaced with new pipe. SMA guided the excavation activities by collecting composite soil samples for field screening with a calibrated photo-ionization detector (PID). The extent of the excavation was increased to approximately 18 feet long, 8 feet wide and 6 feet deep. Field screening determined that more excavation was required. It was decided that repairs would be completed prior to continued excavation.

SMA returned to the site on June 16 and 17, 2015 to continue oversight and guidance of the remedial excavation. However, repair activities experienced delays, preventing any continued remedial excavation. SMA left the site, returning the next day to check on the progress. Remedial excavation had not yet resumed on June 17.

SMA returned to site on June 23, 2015 to collect final samples for laboratory analysis. The excavation had been extended over 100 feet along the length of the pipeline to the north as a second release point was suspected. However, no other points of release were discovered. Stockpiled soil was segregated into two piles and the north stockpile was sampled to determine if the soil was suitable for use as backfill material. Five point composite samples were collected from the stockpiles and the walls and base of the excavation. No representatives from JAEPO or NMOCD were present to monitor the sampling activities. The final excavation measured approximately 133 feet long by 18 feet wide with a depth of 7 to 9 feet, covering an area of approximately 2394 ft². A detailed map of the excavation is attached as Figure 3. In total, approximately 180 cubic yards of contaminated soil were removed and replaced with clean backfill material. The contaminated soil was transported to T-n-T Environmental, near Lindrith, NM. Soil disposal documentation is included in Appendix B.

A total of 23 soil samples were submitted for laboratory analysis per United States Environmental Protection Agency Methods: 8021B for benzene, toluene, ethylbenzene, and xylenes (BTEX) and 8015D for diesel and gasoline range organics (DRO/GRO). All samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. Figure 3 illustrates the release point, the extent of the excavation, laboratory soil sample locations, and laboratory results.

5.0 Conclusions and Recommendations

As noted in Section 3.0 of this report, this release location has been assigned a NMOCD ranking of 20.

Laboratory analytical results for all final extent samples collected were below laboratory detection limits as well as NMOCD remediation soil standards of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons, based on the site ranking. Soil contaminant concentrations are illustrated in Figure 3. A summary of laboratory analyses is included in Table 3. Laboratory reports are included in Appendix C

SMA recommends no further action at the Lateral 2C-85 pipeline release location.

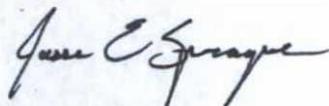
6.0 Closure and Limitations

The scope of our services consisted of the performance of a preliminary spill assessment, verification of release stabilization, regulatory liaison, oversight and control of remediation operations, disposal arrangements and documentation, project management, and preparation of this summary report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas pipeline releases in the San Juan Basin in New Mexico.

If there are any questions regarding this report, please contact either Jesse Sprague or Reid Allan at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES



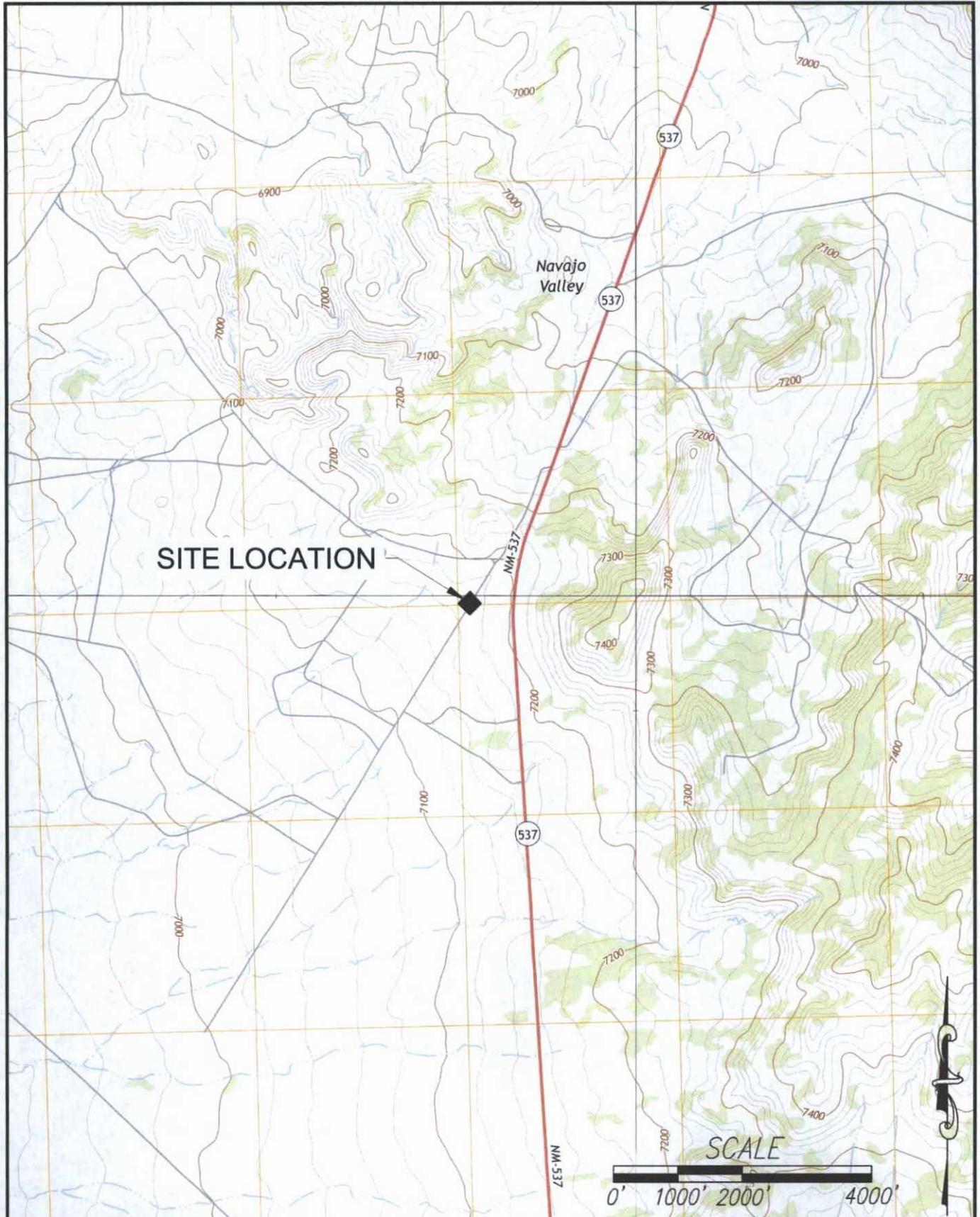
Jesse Sprague
Staff Scientist

Reviewed by:



Reid Allan, P.G.
Vice President/Principal Scientist

Figures



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

ENTERPRISE		FARMINGTON, NEW MEXICO	
Designed JES	Drawn GJF	Checked RSA	
Date: July 2015			
Scale: Horiz: 1" = 2000'			
Vert: NA			
Project No: 5123699			
Figure 1			



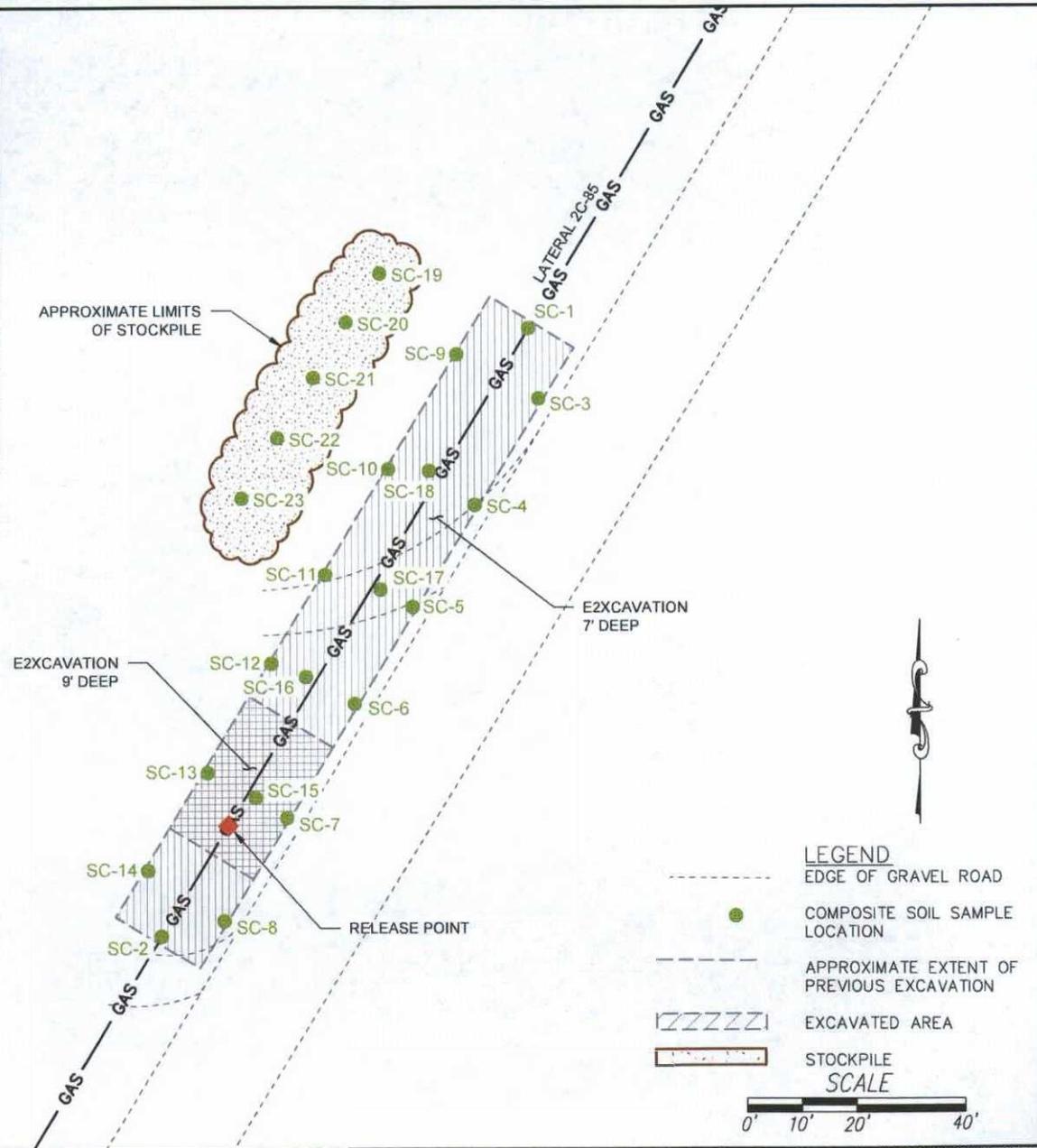
SITE LOCATION



Souder, Miller & Associates
 401 West Broadway Avenue
 Farmington, NM 87401-5907
 Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045
 www.soudermiller.com
 Serving the Southwest & Rocky Mountains

ENTERPRISE	FARMINGTON, NEW MEXICO	Designed JES	Drawn GJF	Checked RSA
SITE LOCATION MAP				
LATERAL 2C-85				
SECTION 4, T23N, R4W				
RIO ARRIEBA COUNTY		Date: July 2015		
		Scale: Horiz: 1" = 30'		
		Vert: NA		
		Project No: 5123699		
		Figure 2		

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
NMOCD Guidelines				100 ppm		10 ppm	50 ppm
NMOCD Site Ranking:							
6/23/2015	9:00	SC-1 N Wall 0-7	0-7	<3.3	<9.8	<0.033	<0.066
6/23/2015	9:02	SC-2 S Wall 0-7	0-7	<3.1	<10	<0.031	<0.062
6/23/2015	9:04	SC-3 E Wall 0-7	0-7	<3.3	<9.8	<0.033	<0.066
6/23/2015	9:06	SC-4 E Wall (2) 0-7	0-7	<3.1	<10	<0.031	<0.062
6/23/2015	9:08	SC-5 E Wall (3) 0-7	0-7	<3.5	<9.7	<0.035	<0.070
6/23/2015	9:10	SC-6 E Wall (4) 0-7	0-7	<3.5	<10	<0.035	<0.070
6/23/2015	9:12	SC-7 E Wall (5) 0-7	0-7	<3.1	<9.8	<0.031	<0.061
6/23/2015	9:14	SC-8 E Wall 96) 0-9	0-9	<2.9	<9.9	<0.029	<0.059
6/23/2015	9:16	SC-9 W Wall (1) 0-7	0-7	<3.4	<9.9	<0.034	<0.069
6/23/2015	9:18	SC-10 W Wall (2) 0-7	0-7	<3.2	<9.7	<0.032	<0.064
6/23/2015	9:20	SC-11 W Wall (3) 0-7	0-7	<4.4	<9.8	<0.044	<0.089
6/23/2015	9:22	SC-12 W Wall (4) 0-7	0-7	<3.9	<9.7	<0.039	<0.078
6/23/2015	9:24	SC-13 W Wall (5) 0-9	0-9	<4.2	<9.7	<0.042	<0.084
6/23/2015	9:26	SC-14 W Wall (6) 0-9	0-9	<5.3	<10	<0.053	<0.11
6/23/2015	9:29	SC-15 Base 5' 9"	9	<4.4	<9.6	<0.044	<0.089
6/23/2015	9:30	SC-16 Base S. C. 7'	7	<4.4	<9.6	<0.044	<0.089
6/23/2015	9:32	SC-17 Base N. N. 7'	7	<3.9	<9.7	<0.039	<0.078
6/23/2015	9:34	SC-18 Base N. 7'	7	<3.9	<9.7	<0.039	<0.077
6/23/2015	9:36	SC-19 S.P. 1	N/A	<4.6	<9.8	<0.046	<0.091
6/23/2015	9:38	SC-20 S.P. 2	N/A	<4.8	<10	<0.048	<0.097
6/23/2015	9:40	SC-21 S.P. 3	N/A	<4.5	<9.8	<0.045	<0.091
6/23/2015	9:42	SC-22 S.P. 4	N/A	<4.6	<9.6	<0.046	<0.092
6/23/2015	9:44	SC-23 S.P. 5	N/A	<5.1	<10	<0.051	<0.10



Rev. #	Date	Description

ENTERPRISE FARMINGTON, NEW MEXICO

SOIL CONTAMINANT CONCENTRATION
LATERAL 2C-85
SECTION 4, T23N, R4W

Souder, Miller & Associates
401 West Broadway Avenue
Farmington, NM 87401-5907
Phone (505) 325-2531 Toll-Free (800) 519-0698 Fax (505) 326-0445
www.soudermiller.com
Serving the Southwest & Rocky Mountains

Designed JES	Drawn GJF	Checked RSA
Date July 2015		
Scale 1" = 20'		
Project No. 5123688		

Figure 3

Tables

Enterprise Products
Table 2: Site Ranking

Lateral 2C-85
Pipeline Release
7/6/2015

Depth to Groundwater	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 50 BGS = 20	10	USGS Topo Maps; Google Earth Elevation Difference from the site and the unnamed wash to the west	Site is located near unnamed ephemeral wash on Jicarilla Reservation, no water wells in vicinity
50' to 99' = 10			
>100' = 0			
Ranking Criteria for Horizontal Distance to Nearest Surface Water	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
< 200' = 20	10	USGS Topo Maps; Google Earth (An unnamed wash ~300' to the west); PRRC Mapping Tool	Unnamed ephemeral wash is located approximately 300 feet to the west of release
200' - 1000' = 10			
>1000' = 0			
Ranking Criteria for Horizontal Distance to a Water Well or Water Source	NMOCD Numeric Rank for this Site	Source for Ranking	Notes
<1000' from a water source? <200' from a private domestic water source? YES OR NO to BOTH. YES = 20, NO = 0	0	NM State Engineer Water Well Database	No Water Wells in 2000 meter radius
Total Site Ranking		30	
Soil Remedation Standards	0 to 9	10 to 19	>19
Benzene	10 PPM	10 PPM	10 PPM
BTEX	50 PPM	50 PPM	50 PPM
TPH	5000 PPM	1000 PPM	100 PPM



Enterprise Products
 Table 3: Summary of Laboratory Analysis
 Results in mg/Kg

Lateral 2C-85
 Pipeline Release
 7/6/2015

Date	Time	Sample ID	Sample Depth (Feet BGS)	Method 8015 GRO	Method 8015 DRO	Method 8021 Benzene	Method 8021 BTEX
NMOCD Guidelines		NMOCD Site Ranking:		1000 ppm		10 ppm	50 ppm
6/23/2015	9:00	SC-1 N Wall 0-7	0-7	<3.3	<9.8	<0.033	<0.066
6/23/2015	9:02	SC-2 S Wall 0-7	0-7	<3.1	<10	<0.031	<0.062
6/23/2015	9:04	SC-3 E Wall 0-7	0-7	<3.3	<9.8	<0.033	<0.066
6/23/2015	9:06	SC-4 E Wall (2) 0-7	0-7	<3.1	<10	<0.031	<0.062
6/23/2015	9:08	SC-5 E Wall (3) 0-7	0-7	<3.5	<9.7	<0.035	<0.070
6/23/2015	9:10	SC-6 E Wall (4) 0-7	0-7	<3.5	<10	<0.035	<0.070
6/23/2015	9:12	SC-7 E Wall (5) 0-7	0-7	<3.1	<9.8	<0.031	<0.061
6/23/2015	9:14	SC-8 E Wall 96) 0-9	0-9	<2.9	<9.9	<0.029	<0.059
6/23/2015	9:16	SC-9 W Wall (1) 0-7	0-7	<3.4	<9.9	<0.034	<0.069
6/23/2015	9:18	SC-10 W Wall (2) 0-7	0-7	<3.2	<9.7	<0.032	<0.064
6/23/2015	9:20	SC-11 W Wall (3) 0-7	0-7	<4.4	<9.8	<0.044	<0.089
6/23/2015	9:22	SC-12 W Wall (4) 0-7	0-7	<3.9	<9.7	<0.039	<0.078
6/23/2015	9:24	SC-13 W Wall (5) 0-9	0-9	<4.2	<9.7	<0.042	<0.084
6/23/2015	9:26	SC-14 W Wall (6) 0-9	0-9	<5.3	<10	<0.053	<0.11
6/23/2015	9:29	SC-15 Base S 9'	9	<4.4	<9.6	<0.044	<0.089
6/23/2015	9:30	SC-16 Base S. C. 7'	7	<4.4	<9.6	<0.044	<0.089
6/23/2015	9:32	SC-17 Base N.N. 7'	7	<3.9	<9.7	<0.039	<0.078
6/23/2015	9:34	SC-18 Base N 7'	7	<3.9	<9.7	<0.039	<0.077
6/23/2015	9:36	SC-19 S.P. 1	N/A	<4.6	<9.8	<0.046	<0.091
6/23/2015	9:38	SC-20 S.P. 2	N/A	<4.8	<10	<0.048	<0.097
6/23/2015	9:40	SC-21 S.P. 3	N/A	<4.5	<9.8	<0.045	<0.091
6/23/2015	9:42	SC-22 S.P. 4	N/A	<4.6	<9.6	<0.046	<0.092
6/23/2015	9:44	SC-23 S.P. 5	N/A	<5.1	<10	<0.051	<0.10



Appendix A
Photographic Documentation

Site Photographs
Enterprise Products Lateral 2C-85 Pipeline



Photo 1: Lateral 2C-85 site during initial excavation for pipeline inspection and repair, photo aspect to south west.



Photo 2: Track mounted excavator on site during sampling, final excavation extent pictured. Repair visible in foreground.

Site Photographs
Enterprise Products Lateral 2C-85 Pipeline



Photo 3: Deeper base section visible beneath repair, this area was excavated to 9 ft BGS.



Photo 4: Track mounted excavator segregating stockpiles. The pile in the background (north) was sampled for use as backfill material.

Appendix B
Soil Disposal Documentation

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

Form C-138
Revised August 1, 2011

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

*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401

2. **Originating Site:**
Lateral 2C-85 Pipeline

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter O Section 4 Township 23 North Range 4 West; 36.249718, -107.25614

4. **Source and Description of Waste:** Hydro-excavated soil impacted with hydrocarbons associated with a pipeline release.

5. Estimated Volume 50 yd³ / bbls Known Volume (to be entered by the operator at the end of the haul) 180 yd³ / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Thomas Long representative or authorized agent for Enterprise Field Services, LLC do hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* Monthly Weekly Per Load

RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

MSDS Information RCRA Hazardous Waste Analysis Process Knowledge Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long 6-16-15, representative for Enterprise Field Services, LLC authorize TNT Land Farm, to complete the required testing/sign the Generator Waste Testing Certification.

I, Craig Schmitz, representative for TNT Land Farm do hereby certify that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

6. **Transporter: West States Energy Contractor**

Name and Facility Permit #: TNT Evap Pond/Landfarm, NM01-0008
Address of Facility: 70 CR 405, Lindrieth NM
Method of Treatment and/or Disposal:

Evaporation Injection Treating Plant Landfarm Landfill Other

Waste Acceptance Status:

APPROVED

DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Craig Schmitz TITLE: ProS. DATE: 6-23-15
SIGNATURE: [Signature] TELEPHONE NO.: 505-632-0615-774-6504
Surface Waste Management Facility Authorized Agent

Appendix C
Laboratory Analytical Reports



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

June 26, 2015

Steve Moskal
Souder, Miller and Associates
401 W. Broadway
Farmington, NM 87401
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 2C-85

OrderNo.: 1506A92

Dear Steve Moskal:

Hall Environmental Analysis Laboratory received 23 sample(s) on 6/24/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue circular stamp.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-1 N Wall 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:00:00 AM

Lab ID: 1506A92-001

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 9:55:56 AM	19901
Surr: DNOP	77.6	57.9-140		%REC	1	6/24/2015 9:55:56 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/24/2015 11:53:40 AM	19882
Surr: BFB	87.3	75.4-113		%REC	1	6/24/2015 11:53:40 AM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.033		mg/Kg	1	6/24/2015 11:53:40 AM	19882
Toluene	ND	0.033		mg/Kg	1	6/24/2015 11:53:40 AM	19882
Ethylbenzene	ND	0.033		mg/Kg	1	6/24/2015 11:53:40 AM	19882
Xylenes, Total	ND	0.066		mg/Kg	1	6/24/2015 11:53:40 AM	19882
Surr: 4-Bromofluorobenzene	90.2	80-120		%REC	1	6/24/2015 11:53:40 AM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-2 S Wall 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:02:00 AM

Lab ID: 1506A92-002

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 9:56:05 AM	19901
Surr: DNOP	89.9	57.9-140		%REC	1	6/24/2015 9:56:05 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	6/24/2015 12:22:26 PM	19882
Surr: BFB	85.7	75.4-113		%REC	1	6/24/2015 12:22:26 PM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.031		mg/Kg	1	6/24/2015 12:22:26 PM	19882
Toluene	ND	0.031		mg/Kg	1	6/24/2015 12:22:26 PM	19882
Ethylbenzene	ND	0.031		mg/Kg	1	6/24/2015 12:22:26 PM	19882
Xylenes, Total	ND	0.062		mg/Kg	1	6/24/2015 12:22:26 PM	19882
Surr: 4-Bromofluorobenzene	88.1	80-120		%REC	1	6/24/2015 12:22:26 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-3 E Wall 1 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:04:00 AM

Lab ID: 1506A92-003

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 10:22:30 AM	19901
Surr: DNOP	92.0	57.9-140		%REC	1	6/24/2015 10:22:30 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.3		mg/Kg	1	6/24/2015 12:51:15 PM	19882
Surr: BFB	85.5	75.4-113		%REC	1	6/24/2015 12:51:15 PM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.033		mg/Kg	1	6/24/2015 12:51:15 PM	19882
Toluene	ND	0.033		mg/Kg	1	6/24/2015 12:51:15 PM	19882
Ethylbenzene	ND	0.033		mg/Kg	1	6/24/2015 12:51:15 PM	19882
Xylenes, Total	ND	0.066		mg/Kg	1	6/24/2015 12:51:15 PM	19882
Surr: 4-Bromofluorobenzene	87.5	80-120		%REC	1	6/24/2015 12:51:15 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p>Qualifiers:</p> <ul style="list-style-type: none"> * Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	<ul style="list-style-type: none"> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit
---	---

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-4 E Wall 2 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:06:00 AM

Lab ID: 1506A92-004

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 10:49:30 AM	19901
Surr: DNOP	97.0	57.9-140		%REC	1	6/24/2015 10:49:30 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	6/24/2015 1:20:02 PM	19882
Surr: BFB	85.2	75.4-113		%REC	1	6/24/2015 1:20:02 PM	19882
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.031		mg/Kg	1	6/24/2015 1:20:02 PM	19882
Toluene	ND	0.031		mg/Kg	1	6/24/2015 1:20:02 PM	19882
Ethylbenzene	ND	0.031		mg/Kg	1	6/24/2015 1:20:02 PM	19882
Xylenes, Total	ND	0.062		mg/Kg	1	6/24/2015 1:20:02 PM	19882
Surr: 4-Bromofluorobenzene	86.0	80-120		%REC	1	6/24/2015 1:20:02 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-5 E Wall 3 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:08:00 AM

Lab ID: 1506A92-005

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 11:16:17 AM	19901
Surr: DNOP	99.5	57.9-140		%REC	1	6/24/2015 11:16:17 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/24/2015 1:48:45 PM	19882
Surr: BFB	84.7	75.4-113		%REC	1	6/24/2015 1:48:45 PM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.035		mg/Kg	1	6/24/2015 1:48:45 PM	19882
Toluene	ND	0.035		mg/Kg	1	6/24/2015 1:48:45 PM	19882
Ethylbenzene	ND	0.035		mg/Kg	1	6/24/2015 1:48:45 PM	19882
Xylenes, Total	ND	0.070		mg/Kg	1	6/24/2015 1:48:45 PM	19882
Surr: 4-Bromofluorobenzene	85.7	80-120		%REC	1	6/24/2015 1:48:45 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-6 E Wall 4 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:10:00 AM

Lab ID: 1506A92-006

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 11:42:54 AM	19901
Surr: DNOP	102	57.9-140		%REC	1	6/24/2015 11:42:54 AM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	6/24/2015 2:17:26 PM	19882
Surr: BFB	84.4	75.4-113		%REC	1	6/24/2015 2:17:26 PM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.035		mg/Kg	1	6/24/2015 2:17:26 PM	19882
Toluene	ND	0.035		mg/Kg	1	6/24/2015 2:17:26 PM	19882
Ethylbenzene	ND	0.035		mg/Kg	1	6/24/2015 2:17:26 PM	19882
Xylenes, Total	ND	0.070		mg/Kg	1	6/24/2015 2:17:26 PM	19882
Surr: 4-Bromofluorobenzene	86.2	80-120		%REC	1	6/24/2015 2:17:26 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-7 E Wall 5 0-9'

Project: 2C-85

Collection Date: 6/23/2015 9:12:00 AM

Lab ID: 1506A92-007

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 12:09:51 PM	19901
Surr: DNOP	96.4	57.9-140		%REC	1	6/24/2015 12:09:51 PM	19901
EPA METHOD 8015D: GASOLINE RANGE							
Analyst: NSB							
Gasoline Range Organics (GRO)	ND	3.1		mg/Kg	1	6/24/2015 2:46:08 PM	19882
Surr: BFB	84.9	75.4-113		%REC	1	6/24/2015 2:46:08 PM	19882
EPA METHOD 8021B: VOLATILES							
Analyst: NSB							
Benzene	ND	0.031		mg/Kg	1	6/24/2015 2:46:08 PM	19882
Toluene	ND	0.031		mg/Kg	1	6/24/2015 2:46:08 PM	19882
Ethylbenzene	ND	0.031		mg/Kg	1	6/24/2015 2:46:08 PM	19882
Xylenes, Total	ND	0.061		mg/Kg	1	6/24/2015 2:46:08 PM	19882
Surr: 4-Bromofluorobenzene	86.7	80-120		%REC	1	6/24/2015 2:46:08 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-8 E Wall 6 0-9'

Project: 2C-85

Collection Date: 6/23/2015 9:14:00 AM

Lab ID: 1506A92-008

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	2.9		mg/Kg	1	6/24/2015 3:30:55 PM	R27055
Surr: BFB	108	67.4-150		%REC	1	6/24/2015 3:30:55 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/24/2015 12:36:42 PM	19901
Surr: DNOP	92.2	57.9-140		%REC	1	6/24/2015 12:36:42 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.029		mg/Kg	1	6/24/2015 3:30:55 PM	R27055
Toluene	ND	0.029		mg/Kg	1	6/24/2015 3:30:55 PM	R27055
Ethylbenzene	ND	0.029		mg/Kg	1	6/24/2015 3:30:55 PM	R27055
Xylenes, Total	ND	0.059		mg/Kg	1	6/24/2015 3:30:55 PM	R27055
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	1	6/24/2015 3:30:55 PM	R27055
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/24/2015 3:30:55 PM	R27055
Surr: Dibromofluoromethane	114	70-130		%REC	1	6/24/2015 3:30:55 PM	R27055
Surr: Toluene-d8	100	70-130		%REC	1	6/24/2015 3:30:55 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
 Project: 2C-85
 Lab ID: 1506A92-009

Client Sample ID: SC-9 W Wall 1 0-7'
 Collection Date: 6/23/2015 9:16:00 AM
 Received Date: 6/24/2015 7:20:00 AM

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	6/24/2015 3:58:36 PM	R27055
Surr: BFB	104	67.4-150		%REC	1	6/24/2015 3:58:36 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/24/2015 1:05:30 PM	19901
Surr: DNOP	95.1	57.9-140		%REC	1	6/24/2015 1:05:30 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.034		mg/Kg	1	6/24/2015 3:58:36 PM	R27055
Toluene	ND	0.034		mg/Kg	1	6/24/2015 3:58:36 PM	R27055
Ethylbenzene	ND	0.034		mg/Kg	1	6/24/2015 3:58:36 PM	R27055
Xylenes, Total	ND	0.069		mg/Kg	1	6/24/2015 3:58:36 PM	R27055
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	6/24/2015 3:58:36 PM	R27055
Surr: 4-Bromofluorobenzene	97.1	70-130		%REC	1	6/24/2015 3:58:36 PM	R27055
Surr: Dibromofluoromethane	110	70-130		%REC	1	6/24/2015 3:58:36 PM	R27055
Surr: Toluene-d8	98.3	70-130		%REC	1	6/24/2015 3:58:36 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-10 W Wall 2 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:18:00 AM

Lab ID: 1506A92-010

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	3.2		mg/Kg	1	6/24/2015 1:10:27 PM	R27056
Surr: BFB	109	67.4-150		%REC	1	6/24/2015 1:10:27 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 1:32:36 PM	19901
Surr: DNOP	90.3	57.9-140		%REC	1	6/24/2015 1:32:36 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.032		mg/Kg	1	6/24/2015 1:10:27 PM	19882
Toluene	ND	0.032		mg/Kg	1	6/24/2015 1:10:27 PM	19882
Ethylbenzene	ND	0.032		mg/Kg	1	6/24/2015 1:10:27 PM	19882
Xylenes, Total	ND	0.064		mg/Kg	1	6/24/2015 1:10:27 PM	19882
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/24/2015 1:10:27 PM	19882
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	6/24/2015 1:10:27 PM	19882
Surr: Dibromofluoromethane	106	70-130		%REC	1	6/24/2015 1:10:27 PM	19882
Surr: Toluene-d8	100	70-130		%REC	1	6/24/2015 1:10:27 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p>Qualifiers:</p> <ul style="list-style-type: none"> * Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	<ul style="list-style-type: none"> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-11 W Wall 3 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:20:00 AM

Lab ID: 1506A92-011

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	6/24/2015 1:39:14 PM	R27056
Surr: BFB	107	67.4-150		%REC	1	6/24/2015 1:39:14 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 1:59:51 PM	19901
Surr: DNOP	94.1	57.9-140		%REC	1	6/24/2015 1:59:51 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.044		mg/Kg	1	6/24/2015 1:39:14 PM	19882
Toluene	ND	0.044		mg/Kg	1	6/24/2015 1:39:14 PM	19882
Ethylbenzene	ND	0.044		mg/Kg	1	6/24/2015 1:39:14 PM	19882
Xylenes, Total	ND	0.089		mg/Kg	1	6/24/2015 1:39:14 PM	19882
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/24/2015 1:39:14 PM	19882
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	6/24/2015 1:39:14 PM	19882
Surr: Dibromofluoromethane	106	70-130		%REC	1	6/24/2015 1:39:14 PM	19882
Surr: Toluene-d8	93.5	70-130		%REC	1	6/24/2015 1:39:14 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-12 W Wall 4 0-7'

Project: 2C-85

Collection Date: 6/23/2015 9:22:00 AM

Lab ID: 1506A92-012

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	6/24/2015 2:08:01 PM	R27056
Surr: BFB	104	67.4-150		%REC	1	6/24/2015 2:08:01 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 10:17:22 AM	19901
Surr: DNOP	90.5	57.9-140		%REC	1	6/24/2015 10:17:22 AM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.039		mg/Kg	1	6/24/2015 2:08:01 PM	19882
Toluene	ND	0.039		mg/Kg	1	6/24/2015 2:08:01 PM	19882
Ethylbenzene	ND	0.039		mg/Kg	1	6/24/2015 2:08:01 PM	19882
Xylenes, Total	ND	0.078		mg/Kg	1	6/24/2015 2:08:01 PM	19882
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/24/2015 2:08:01 PM	19882
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	6/24/2015 2:08:01 PM	19882
Surr: Dibromofluoromethane	108	70-130		%REC	1	6/24/2015 2:08:01 PM	19882
Surr: Toluene-d8	91.8	70-130		%REC	1	6/24/2015 2:08:01 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-13 W Wall 5 0-9'

Project: 2C-85

Collection Date: 6/23/2015 9:24:00 AM

Lab ID: 1506A92-013

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	6/24/2015 2:36:50 PM	R27056
Surr: BFB	108	67.4-150		%REC	1	6/24/2015 2:36:50 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 10:45:36 AM	19901
Surr: DNOP	85.2	57.9-140		%REC	1	6/24/2015 10:45:36 AM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.042		mg/Kg	1	6/24/2015 2:36:50 PM	19882
Toluene	ND	0.042		mg/Kg	1	6/24/2015 2:36:50 PM	19882
Ethylbenzene	ND	0.042		mg/Kg	1	6/24/2015 2:36:50 PM	19882
Xylenes, Total	ND	0.084		mg/Kg	1	6/24/2015 2:36:50 PM	19882
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%REC	1	6/24/2015 2:36:50 PM	19882
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	6/24/2015 2:36:50 PM	19882
Surr: Dibromofluoromethane	111	70-130		%REC	1	6/24/2015 2:36:50 PM	19882
Surr: Toluene-d8	97.3	70-130		%REC	1	6/24/2015 2:36:50 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p>Qualifiers:</p> <ul style="list-style-type: none"> * Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	<ul style="list-style-type: none"> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit
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Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-14 W Wall 6 0-9'

Project: 2C-85

Collection Date: 6/23/2015 9:26:00 AM

Lab ID: 1506A92-014

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	5.3		mg/Kg	1	6/24/2015 3:05:41 PM	R27056
Surr: BFB	108	67.4-150		%REC	1	6/24/2015 3:05:41 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 11:06:49 AM	19901
Surr: DNOP	82.1	57.9-140		%REC	1	6/24/2015 11:06:49 AM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.053		mg/Kg	1	6/24/2015 3:05:41 PM	19882
Toluene	ND	0.053		mg/Kg	1	6/24/2015 3:05:41 PM	19882
Ethylbenzene	ND	0.053		mg/Kg	1	6/24/2015 3:05:41 PM	19882
Xylenes, Total	ND	0.11		mg/Kg	1	6/24/2015 3:05:41 PM	19882
Surr: 1,2-Dichloroethane-d4	98.1	70-130		%REC	1	6/24/2015 3:05:41 PM	19882
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	6/24/2015 3:05:41 PM	19882
Surr: Dibromofluoromethane	103	70-130		%REC	1	6/24/2015 3:05:41 PM	19882
Surr: Toluene-d8	94.4	70-130		%REC	1	6/24/2015 3:05:41 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p>Qualifiers:</p> <ul style="list-style-type: none"> * Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	<ul style="list-style-type: none"> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-15 Base S 9'

Project: 2C-85

Collection Date: 6/23/2015 9:28:00 AM

Lab ID: 1506A92-015

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: cadg							
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	6/24/2015 3:34:33 PM	R27056
Surr: BFB	113	67.4-150		%REC	1	6/24/2015 3:34:33 PM	R27056
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/24/2015 11:28:02 AM	19901
Surr: DNOP	89.1	57.9-140		%REC	1	6/24/2015 11:28:02 AM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: cadg							
Benzene	ND	0.044		mg/Kg	1	6/24/2015 3:34:33 PM	19882
Toluene	ND	0.044		mg/Kg	1	6/24/2015 3:34:33 PM	19882
Ethylbenzene	ND	0.044		mg/Kg	1	6/24/2015 3:34:33 PM	19882
Xylenes, Total	ND	0.089		mg/Kg	1	6/24/2015 3:34:33 PM	19882
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	1	6/24/2015 3:34:33 PM	19882
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	6/24/2015 3:34:33 PM	19882
Surr: Dibromofluoromethane	105	70-130		%REC	1	6/24/2015 3:34:33 PM	19882
Surr: Toluene-d8	99.4	70-130		%REC	1	6/24/2015 3:34:33 PM	19882

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-16 Base S.C. 7'

Project: 2C-85

Collection Date: 6/23/2015 9:30:00 AM

Lab ID: 1506A92-016

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	6/24/2015 11:49:56 AM	R27055
Surr: BFB	99.8	67.4-150		%REC	1	6/24/2015 11:49:56 AM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/24/2015 2:44:22 PM	19901
Surr: DNOP	87.8	57.9-140		%REC	1	6/24/2015 2:44:22 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.044		mg/Kg	1	6/24/2015 11:49:56 AM	R27055
Toluene	ND	0.044		mg/Kg	1	6/24/2015 11:49:56 AM	R27055
Ethylbenzene	ND	0.044		mg/Kg	1	6/24/2015 11:49:56 AM	R27055
Xylenes, Total	ND	0.089		mg/Kg	1	6/24/2015 11:49:56 AM	R27055
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	6/24/2015 11:49:56 AM	R27055
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	6/24/2015 11:49:56 AM	R27055
Surr: Dibromofluoromethane	103	70-130		%REC	1	6/24/2015 11:49:56 AM	R27055
Surr: Toluene-d8	98.0	70-130		%REC	1	6/24/2015 11:49:56 AM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-17 Base N.C. 7'

Project: 2C-85

Collection Date: 6/23/2015 9:32:00 AM

Lab ID: 1506A92-017

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	6/24/2015 12:17:31 PM	R27055
Surr: BFB	99.7	67.4-150		%REC	1	6/24/2015 12:17:31 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 12:10:36 PM	19901
Surr: DNOP	89.1	57.9-140		%REC	1	6/24/2015 12:10:36 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.039		mg/Kg	1	6/24/2015 12:17:31 PM	R27055
Toluene	ND	0.039		mg/Kg	1	6/24/2015 12:17:31 PM	R27055
Ethylbenzene	ND	0.039		mg/Kg	1	6/24/2015 12:17:31 PM	R27055
Xylenes, Total	ND	0.078		mg/Kg	1	6/24/2015 12:17:31 PM	R27055
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	6/24/2015 12:17:31 PM	R27055
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	6/24/2015 12:17:31 PM	R27055
Surr: Dibromofluoromethane	108	70-130		%REC	1	6/24/2015 12:17:31 PM	R27055
Surr: Toluene-d8	94.2	70-130		%REC	1	6/24/2015 12:17:31 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH Not In Range
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-18 Base N 7'

Project: 2C-85

Collection Date: 6/23/2015 9:34:00 AM

Lab ID: 1506A92-018

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	6/24/2015 12:45:11 PM	R27055
Surr: BFB	98.9	67.4-150		%REC	1	6/24/2015 12:45:11 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	6/24/2015 12:31:59 PM	19901
Surr: DNOP	90.5	57.9-140		%REC	1	6/24/2015 12:31:59 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.039		mg/Kg	1	6/24/2015 12:45:11 PM	R27055
Toluene	ND	0.039		mg/Kg	1	6/24/2015 12:45:11 PM	R27055
Ethylbenzene	ND	0.039		mg/Kg	1	6/24/2015 12:45:11 PM	R27055
Xylenes, Total	ND	0.077		mg/Kg	1	6/24/2015 12:45:11 PM	R27055
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	6/24/2015 12:45:11 PM	R27055
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	6/24/2015 12:45:11 PM	R27055
Surr: Dibromofluoromethane	110	70-130		%REC	1	6/24/2015 12:45:11 PM	R27055
Surr: Toluene-d8	93.0	70-130		%REC	1	6/24/2015 12:45:11 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-19 S.P. 1

Project: 2C-85

Collection Date: 6/23/2015 9:36:00 AM

Lab ID: 1506A92-019

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/24/2015 1:12:45 PM	R27055
Surr: BFB	104	67.4-150		%REC	1	6/24/2015 1:12:45 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 12:53:13 PM	19901
Surr: DNOP	92.5	57.9-140		%REC	1	6/24/2015 12:53:13 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.046		mg/Kg	1	6/24/2015 1:12:45 PM	R27055
Toluene	ND	0.046		mg/Kg	1	6/24/2015 1:12:45 PM	R27055
Ethylbenzene	ND	0.046		mg/Kg	1	6/24/2015 1:12:45 PM	R27055
Xylenes, Total	ND	0.091		mg/Kg	1	6/24/2015 1:12:45 PM	R27055
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	6/24/2015 1:12:45 PM	R27055
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	1	6/24/2015 1:12:45 PM	R27055
Surr: Dibromofluoromethane	107	70-130		%REC	1	6/24/2015 1:12:45 PM	R27055
Surr: Toluene-d8	93.8	70-130		%REC	1	6/24/2015 1:12:45 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-20 S.P. 2

Project: 2C-85

Collection Date: 6/23/2015 9:38:00 AM

Lab ID: 1506A92-020

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/24/2015 1:40:22 PM	R27055
Surr: BFB	98.8	67.4-150		%REC	1	6/24/2015 1:40:22 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 1:14:33 PM	19901
Surr: DNOP	89.7	57.9-140		%REC	1	6/24/2015 1:14:33 PM	19901
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.048		mg/Kg	1	6/24/2015 1:40:22 PM	R27055
Toluene	ND	0.048		mg/Kg	1	6/24/2015 1:40:22 PM	R27055
Ethylbenzene	ND	0.048		mg/Kg	1	6/24/2015 1:40:22 PM	R27055
Xylenes, Total	ND	0.097		mg/Kg	1	6/24/2015 1:40:22 PM	R27055
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	6/24/2015 1:40:22 PM	R27055
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	1	6/24/2015 1:40:22 PM	R27055
Surr: Dibromofluoromethane	108	70-130		%REC	1	6/24/2015 1:40:22 PM	R27055
Surr: Toluene-d8	95.6	70-130		%REC	1	6/24/2015 1:40:22 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-21 S.P. 3

Project: 2C-85

Collection Date: 6/23/2015 9:40:00 AM

Lab ID: 1506A92-021

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	4.5		mg/Kg	1	6/24/2015 2:07:56 PM	R27055
Surr: BFB	104	67.4-150		%REC	1	6/24/2015 2:07:56 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	6/24/2015 3:05:42 PM	19902
Surr: DNOP	83.8	57.9-140		%REC	1	6/24/2015 3:05:42 PM	19902
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.045		mg/Kg	1	6/24/2015 2:07:56 PM	R27055
Toluene	ND	0.045		mg/Kg	1	6/24/2015 2:07:56 PM	R27055
Ethylbenzene	ND	0.045		mg/Kg	1	6/24/2015 2:07:56 PM	R27055
Xylenes, Total	ND	0.091		mg/Kg	1	6/24/2015 2:07:56 PM	R27055
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	6/24/2015 2:07:56 PM	R27055
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	6/24/2015 2:07:56 PM	R27055
Surr: Dibromofluoromethane	103	70-130		%REC	1	6/24/2015 2:07:56 PM	R27055
Surr: Toluene-d8	97.7	70-130		%REC	1	6/24/2015 2:07:56 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-22 S.P. 4

Project: 2C-85

Collection Date: 6/23/2015 9:42:00 AM

Lab ID: 1506A92-022

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/24/2015 2:35:34 PM	R27055
Surr: BFB	107	67.4-150		%REC	1	6/24/2015 2:35:34 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: KJH
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/24/2015 2:01:30 PM	19902
Surr: DNOP	90.6	57.9-140		%REC	1	6/24/2015 2:01:30 PM	19902
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.046		mg/Kg	1	6/24/2015 2:35:34 PM	R27055
Toluene	ND	0.046		mg/Kg	1	6/24/2015 2:35:34 PM	R27055
Ethylbenzene	ND	0.046		mg/Kg	1	6/24/2015 2:35:34 PM	R27055
Xylenes, Total	ND	0.092		mg/Kg	1	6/24/2015 2:35:34 PM	R27055
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/24/2015 2:35:34 PM	R27055
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	6/24/2015 2:35:34 PM	R27055
Surr: Dibromofluoromethane	104	70-130		%REC	1	6/24/2015 2:35:34 PM	R27055
Surr: Toluene-d8	96.5	70-130		%REC	1	6/24/2015 2:35:34 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Analytical Report

Lab Order 1506A92

Date Reported: 6/26/2015

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC-23 S.P. 5

Project: 2C-85

Collection Date: 6/23/2015 9:44:00 AM

Lab ID: 1506A92-023

Matrix: SOIL

Received Date: 6/24/2015 7:20:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							
Analyst: DJF							
Gasoline Range Organics (GRO)	ND	5.1		mg/Kg	1	6/24/2015 3:03:14 PM	R27055
Surr: BFB	108	67.4-150		%REC	1	6/24/2015 3:03:14 PM	R27055
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							
Analyst: KJH							
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/24/2015 2:22:55 PM	19902
Surr: DNOP	94.4	57.9-140		%REC	1	6/24/2015 2:22:55 PM	19902
EPA METHOD 8260B: VOLATILES SHORT LIST							
Analyst: DJF							
Benzene	ND	0.051		mg/Kg	1	6/24/2015 3:03:14 PM	R27055
Toluene	ND	0.051		mg/Kg	1	6/24/2015 3:03:14 PM	R27055
Ethylbenzene	ND	0.051		mg/Kg	1	6/24/2015 3:03:14 PM	R27055
Xylenes, Total	ND	0.10		mg/Kg	1	6/24/2015 3:03:14 PM	R27055
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	6/24/2015 3:03:14 PM	R27055
Surr: 4-Bromofluorobenzene	93.8	70-130		%REC	1	6/24/2015 3:03:14 PM	R27055
Surr: Dibromofluoromethane	108	70-130		%REC	1	6/24/2015 3:03:14 PM	R27055
Surr: Toluene-d8	102	70-130		%REC	1	6/24/2015 3:03:14 PM	R27055

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<p>Qualifiers:</p> <ul style="list-style-type: none"> * Value exceeds Maximum Contaminant Level. E Value above quantitation range J Analyte detected below quantitation limits O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery limits 	<ul style="list-style-type: none"> B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit P Sample pH Not In Range RL Reporting Detection Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	MB-19902	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19902	RunNo:	27043					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	807981	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.1		10.00		90.9	57.9	140			

Sample ID	LCS-19902	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19902	RunNo:	27043					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	807984	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	89.2	57.4	139			
Surr: DNOP	4.5		5.000		90.3	57.9	140			

Sample ID	MB-19901	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19901	RunNo:	27044					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808008	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.3		10.00		92.8	57.9	140			

Sample ID	LCS-19901	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19901	RunNo:	27044					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808009	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.3	57.4	139			
Surr: DNOP	5.0		5.000		101	57.9	140			

Sample ID	1506A92-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1 N Wall 0-7'	Batch ID:	19901	RunNo:	27044					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808326	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	9.9	49.55	8.242	81.3	42.3	146			
Surr: DNOP	4.6		4.955		93.2	57.9	140			

Sample ID	1506A92-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1 N Wall 0-7'	Batch ID:	19901	RunNo:	27044					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808394	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	1506A92-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-1 N Wall 0-7'	Batch ID:	19901	RunNo:	27044					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808394	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.6	47.85	8.242	90.0	42.3	146	5.55	28.9	
Surr: DNOP	4.9		4.785		103	57.9	140	0	0	

Sample ID	1506A92-021AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-21 S.P. 3	Batch ID:	19902	RunNo:	27043					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808716	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	9.9	49.31	0	81.5	42.3	146			
Surr: DNOP	4.4		4.931		90.2	57.9	140			

Sample ID	1506A92-021AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	SC-21 S.P. 3	Batch ID:	19902	RunNo:	27043					
Prep Date:	6/24/2015	Analysis Date:	6/24/2015	SeqNo:	808717	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.6	48.12	0	77.3	42.3	146	7.67	28.9	
Surr: DNOP	4.1		4.812		85.8	57.9	140	0	0	

Sample ID	MB-19850	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	19850	RunNo:	27044					
Prep Date:	6/22/2015	Analysis Date:	6/24/2015	SeqNo:	809147	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		113	57.9	140			

Sample ID	LCS-19850	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	19850	RunNo:	27044					
Prep Date:	6/22/2015	Analysis Date:	6/24/2015	SeqNo:	809148	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.4		5.000		109	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	MB-19882	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	19882	RunNo:	27049					
Prep Date:	6/23/2015	Analysis Date:	6/24/2015	SeqNo:	808572	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	840		1000		84.2	75.4	113			

Sample ID	LCS-19882	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	19882	RunNo:	27049					
Prep Date:	6/23/2015	Analysis Date:	6/24/2015	SeqNo:	808573	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.6	64	130			
Surr: BFB	920		1000		92.3	75.4	113			

Sample ID	1506A92-001AMS	SampType:	MS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1 N Wall 0-7'	Batch ID:	19882	RunNo:	27049					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808574	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.3	16.60	0	107	47.9	144			
Surr: BFB	620		664.0		93.3	75.4	113			

Sample ID	1506A92-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	SC-1 N Wall 0-7'	Batch ID:	19882	RunNo:	27049					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808575	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	3.3	16.60	0	103	47.9	144	3.53	29.9	
Surr: BFB	620		664.0		92.8	75.4	113	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	MB-19882	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles						
Client ID:	PBS	Batch ID:	19882	RunNo:	27049						
Prep Date:	6/23/2015	Analysis Date:	6/24/2015	SeqNo:	808592	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 4-Bromofluorobenzene	0.86		1.000		86.4	80	120				

Sample ID	LCS-19882	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles						
Client ID:	LCSS	Batch ID:	19882	RunNo:	27049						
Prep Date:	6/23/2015	Analysis Date:	6/24/2015	SeqNo:	808593	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	1.000	0	105	76.6	128				
Toluene	1.0	0.050	1.000	0	102	75	124				
Ethylbenzene	1.0	0.050	1.000	0	104	79.5	126				
Xylenes, Total	3.1	0.10	3.000	0	103	78.8	124				
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120				

Sample ID	1506A92-002AMS	SampType:	MS	TestCode:	EPA Method 8021B: Volatiles						
Client ID:	SC-2 S Wall 0-7'	Batch ID:	19882	RunNo:	27049						
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808594	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.68	0.031	0.6173	0	110	69.2	126				
Toluene	0.65	0.031	0.6173	0	105	65.6	128				
Ethylbenzene	0.67	0.031	0.6173	0	109	65.5	138				
Xylenes, Total	2.0	0.062	1.852	0	108	63	139				
Surr: 4-Bromofluorobenzene	0.59		0.6173		96.4	80	120				

Sample ID	1506A92-002AMSD	SampType:	MSD	TestCode:	EPA Method 8021B: Volatiles						
Client ID:	SC-2 S Wall 0-7'	Batch ID:	19882	RunNo:	27049						
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808595	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.67	0.031	0.6173	0	108	69.2	126	1.31	18.5		
Toluene	0.65	0.031	0.6173	0	106	65.6	128	0.562	20.6		
Ethylbenzene	0.67	0.031	0.6173	0	109	65.5	138	0.267	20.1		
Xylenes, Total	2.0	0.062	1.852	0	108	63	139	0.722	21.1		
Surr: 4-Bromofluorobenzene	0.60		0.6173		96.9	80	120	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	mb-19882	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	19882	RunNo:	27056					
Prep Date:	6/23/2015	Analysis Date:	6/25/2015	SeqNo:	808766	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		99.5	70	130			

Sample ID	lcs-19882	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	19882	RunNo:	27056					
Prep Date:	6/23/2015	Analysis Date:	6/25/2015	SeqNo:	808775	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	103	70	130			
Toluene	0.97	0.050	1.000	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.56		0.5000		112	70	130			
Surr: Toluene-d8	0.48		0.5000		95.4	70	130			

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	PBS	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808810	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.7	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		100	70	130			
Surr: Toluene-d8	0.49		0.5000		97.7	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	LCSS	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808818	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92
26-Jun-15

Client: Souder, Miller and Associates
Project: 2C-85

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles Short List						
Client ID:	LCSS	Batch ID:	R27055	RunNo:	27055						
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808818	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	1.000	0	108	70	130				
Toluene	1.1	0.050	1.000	0	109	70	130				
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130				
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130				
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130				
Surr: Toluene-d8	0.50		0.5000		99.7	70	130				

Sample ID	1506092-017ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles Short List						
Client ID:	BatchQC	Batch ID:	R27055	RunNo:	27055						
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808840	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.81	0.039	0.7770	0	104	57.8	132				
Toluene	0.83	0.039	0.7770	0	107	54.8	139				
Surr: 1,2-Dichloroethane-d4	0.40		0.3885		103	70	130				
Surr: 4-Bromofluorobenzene	0.36		0.3885		93.6	70	130				
Surr: Dibromofluoromethane	0.42		0.3885		107	70	130				
Surr: Toluene-d8	0.38		0.3885		97.3	70	130				

Sample ID	1506092-017amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List						
Client ID:	BatchQC	Batch ID:	R27055	RunNo:	27055						
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808854	Units:	mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	0.78	0.039	0.7770	0	101	57.8	132	3.24	20		
Toluene	0.79	0.039	0.7770	0	102	54.8	139	4.54	20		
Surr: 1,2-Dichloroethane-d4	0.41		0.3885		106	70	130	0	0		
Surr: 4-Bromofluorobenzene	0.37		0.3885		95.4	70	130	0	0		
Surr: Dibromofluoromethane	0.42		0.3885		109	70	130	0	0		
Surr: Toluene-d8	0.39		0.3885		99.9	70	130	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92

26-Jun-15

Client: Souder, Miller and Associates

Project: 2C-85

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808860	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	490		500.0		97.5	67.4	150			

Sample ID	2.5ug gro lcs	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808868	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	79.9	135			
Surr: BFB	490		500.0		98.4	67.4	150			

Sample ID	1506092-016ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808869	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.4	22.12	0	106	65.2	156			
Surr: BFB	480		442.5		108	67.4	150			

Sample ID	1506092-016amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R27055	RunNo:	27055					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808870	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.4	22.12	0	108	65.2	156	1.61	20	
Surr: BFB	480		442.5		108	67.4	150	0	0	

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	R27056	RunNo:	27056					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808871	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	500		500.0		99.4	67.4	150			

Sample ID	2.5ug gro lcs1	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	R27056	RunNo:	27056					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808872	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1506A92

26-Jun-15

Client: Souder, Miller and Associates

Project: 2C-85

Sample ID	2.5ug gro lcs1	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	R27056	RunNo:	27056					
Prep Date:		Analysis Date:	6/24/2015	SeqNo:	808872	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.1	79.9	135			
Surr: BFB	500		500.0		101	67.4	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

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

Sample Log-In Check List

Client Name: SMA-FARM

Work Order Number: 1506A92

RcptNo: 1

Received by/date: AT 06/24/15

Logged By: Anne Thorne 6/24/2015 7:20:00 AM *Anne Thorne*

Completed By: Anne Thorne 6/24/2015 *Anne Thorne*

Reviewed By: *AT* 06/24/15

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
2	1.0	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W Broadway
Farmington, NM, 87401

Phone #: 505 325 7535

Email or Fax#: Steven.moskal@SoudersMiller.com

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation
 NELAP Other _____

EDD (Type)

Turn-Around Time:

Standard Rush Same Day

Project Name:

2C-85

Project #:

21546

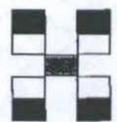
Project Manager:

Steve Moskal

Sampler: J. Sprague

On Ice: Yes No

Sample Temperature: 10



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	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)
Soil	SC-1 N well 0-7'	14oz Acid Kit	None	201	X	X	X									
"	SC-2 S well 0-7'	"	"	202	X	X	X									
"	SC-3 E well 1 0-7'	"	"	203	X	X	X									
"	SC-4 E well 2 0-7'	"	"	204	X	X	X									
"	SC-5 E well 3 0-7'	"	"	205	X	X	X									
"	SC-6 E well 4 0-7'	"	"	206	X	X	X									
"	SC-7 E well 5 0-9'	"	"	207	X	X	X									
"	SC-8 E well 6 0-9'	"	"	208	X	X	X									
"	SC-9 W well 1 0-7'	"	"	209	X	X	X									
"	SC-10 W well 2 0-7'	"	"	210	X	X	X									
"	SC-11 W well 3 0-7'	"	"	211	X	X	X									
"	SC-12 W well 4 0-7'	"	"	212	X	X	X									

Date: 12/15 Time: 1800 Relinquished by: J. E. Sprague Received by: Christy Waite Date: 12/15 Time: 1800

Date: 12/15 Time: 1850 Relinquished by: Christy Waite Received by: Christy Waite Date: 12/15 Time: 1720

Remarks: Invoice EPCO
Please copy
Jesse.Sprague@SoudersMiller.com

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.

Chain-of-Custody Record

Client: SMA

Mailing Address: 401 W Broadway

Farmington, NM, 87401

Phone #: 505 325 7535

email or Fax#: steve.mostal@sandermiller.com

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation
 NELAP Other

EDD (Type)

Turn-Around Time:

Standard Rush *Same Day*

Project Name:

2C-85

Project #:

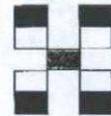
21546

Project Manager:

Steve Mostal

Sampler: J. Sprague
 On Ice: Yes No

Sample Temperature: 10



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX	MTBE	TPH	TPH 8015B	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	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)
6/23	0924	Soil	SC-13 w wall 5 0-9'	1 4oz Mod Kit	Mod	1506A92	X	X	X	X									
	0926		SC-14 w wall 6 0-9'			213	X	X	X	X									
	0928		SC-15 Base S.C.			215	X	X	X	X									
	0930		SC-16 Base S.C.			216	X	X	X	X									
	0932		SC-17 Base N.C.			217	X	X	X	X									
	0934		SC-18 Base N 7'			218	X	X	X	X									
	0936		SC-19 S.P. 1			219	X	X	X	X									
	0938		SC-20 S.P. 2			220	X	X	X	X									
	0940		SC-21 S.P. 3			222	X	X	X	X									
	0942		SC-22 S.P. 4			223	X	X	X	X									
	0944		SC-23 S.P. 5			224	X	X	X	X									

Date: 6/23/15 Time: 1850 Relinquished by: J. E. Sprague

Received by: Christy Wade Date: 6/23/15 Time: 1800

Remarks: Invoice EPCO

Date: 6/23/15 Time: 1850 Relinquished by: Christine Paeters

Received by: [Signature] Date: 6/24/15 Time: 0720

Please copy
 Jesse. Sprague@ sandermiller.com

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

OIL CONS. DIV DIST. 3

AUG 13 2015

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Jicarilla 126S #13	Facility Type: Natural Gas Gathering Pipeline
Surface Owner: Jicarilla Apache Tribe	Mineral Owner: Jicarilla Apache Tribe
API No.	

LOCATION OF RELEASE

Unit Letter L	Section 12	Township 24 N	Range 4W	Feet from the 031	North/South Line	Feet from the 1200	East/West Line	County Rio Arriba
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Latitude 36.323088 Longitude -107.202824

NATURE OF RELEASE

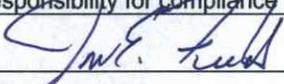
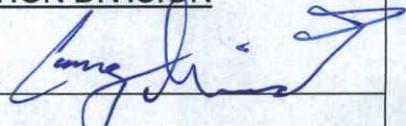
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Leaking Valve	Date and Hour of Occurrence: 7/28/15 @ 10:25 a.m.	Date and Hour of Discovery: 7/28/15 @ 11:15 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification – Cory Smith – NMOCD, Hobson Sandoval - JAEPO	
By Whom? Thomas Long	Date and Time 7/29/15 9:48 a.m.	
Was a Watercourse Reached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse	

If a Watercourse was Impacted, Describe Fully.* Fluids were released to the ground surface and flowed down the hill into a small ephemeral wash.

Describe Cause of Problem and Remedial Action: On July 28, 2015, Enterprise technicians confirmed a minor gas leak on a valve associated with the Jicarilla 126S #13 pipeline. Fluids were released to the ground surface. The pipeline was isolated, blown down, locked out and tagged out for safety and environmental concerns. Repairs and remediation are in the scheduling process.

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process... A third party environmental contractor is overseeing excavation activities and will collect samples for determination of impacted soils. A third party corrective action report will be submitted with the "Final" C-141.

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: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 8/18/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/6/2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1523031703

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

AUG 14 2015

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Revised August 8, 2011Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

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

Release Notification and Corrective Action

OPERATOR

 Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Lateral K-51	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: State Of New Mexico	Mineral Owner: State Of New Mexico	API No.
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LOCATION OF RELEASE

Unit Letter O	Section 36	Township 26N	Range 6W	Feet from the 860'	North/South Line	Feet from the 1450'	East/West Line	County Rio Arriba
------------------	---------------	-----------------	-------------	-----------------------	---------------------	------------------------	-------------------	----------------------

Latitude 36.438860 Longitude -107.417726

NATURE OF RELEASE

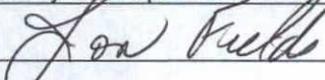
Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: 7/31/15 @ 2:45 p.m.	Date and Hour of Discovery: 7/31/15 @ 3:35 p.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification - Cory Smith - NMOCD	
By Whom? Runell Seale	Date and Time 8/8/15 at 7:30 a.m.	
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: On July 31, 2015, Enterprise technicians confirmed a minor gas leak on the Lateral K-51 pipeline. The pipeline was isolated, blown down, locked out and tagged out for safety and environmental concerns. Repairs and remediation are currently in progress.

Describe Area Affected and Cleanup Action: On August 7, 2015 during pipeline repairs subsurface contamination was encountered in the excavation. A third party environmental contractor is overseeing excavation activities and will collect samples after remediation activities are complete. A third party corrective action report will be submitted with the "Final" C-141.

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: Jon E. Fields	Approved by Environmental Specialist: 	
Title: Director, Environmental	Approval Date: 8/18/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-11-2015	Phone: (713)381-6684	

* Attach Additional Sheets If Necessary

#NCS 1523031446

①

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

AUG 14 2015 Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

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

Release Notification and Corrective Action

OPERATOR Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Jicarilla F#3	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: Jicarilla Apache Tribe	Mineral Owner: Jicarilla Apache Tribe	API No.
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LOCATION OF RELEASE

Unit Letter C	Section 28	Township 26 N	Range 5 W	Feet from the 705	North South Line	Feet from the 1691	East West Line	County Rio Arriba
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Latitude 36.462995 Longitude -107.368065

NATURE OF RELEASE

Type of Release: Natural Gas and Natural Gas Liquids	Volume of Release: Unknown	Volume Recovered: None
Source of Release: Suspected Internal Corrosion	Date and Hour of Occurrence: 7/31/15 @ 10:36 a.m.	Date and Hour of Discovery: 7/31/15 @ 11:15 a.m.
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Courtesy Notification – Hobson Sandoval - JAEPO	
By Whom? Thomas Long	Date and Time 7/31/15 2:18 p.m.	
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: On July 31, 2015, Enterprise technicians confirmed a gas leak on the Jicarilla F#3 pipeline. No surface impacts were observed. The pipeline was isolated, blown down, locked out and tagged out for safety and environmental concerns. Repairs and remediation are in the scheduling process.

Describe Area Affected and Cleanup Action: Repairs and remediation are in the scheduling process. A third party environmental contractor is overseeing excavation activities and will collect samples for determination of impacted soils. A third party corrective action report will be submitted with the "Final" C-141.

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>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Environmental	Approval Date: 8/18/15	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-10-2015	Phone: (713)381-6684	Site Rank 20

* Attach Additional Sheets If Necessary

#NES 1523031141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 August 8, 2011

Submit 1 Copy to appropriate District Office
in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company: Enterprise Field Services LLC	Contact: Thomas Long
Address: 614 Reilly Ave, Farmington, NM 87401	Telephone No. 505-599-2286
Facility Name: Apache Hills #2	Facility Type: Natural Gas Gathering Pipeline

Surface Owner: Jicarilla Apache Tribe	Mineral Owner: Jicarilla Apache Tribe	API No.
---------------------------------------	---------------------------------------	---------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	8	23N	3W					Rio Arriba

Latitude 36.23355 Longitude 107.18543

OIL CONS. DIV DIST. 3

NATURE OF RELEASE

SEP 25 2015

Type of Release: Natural Gas	Volume of Release: 63.25 MCF Gas	Volume Recovered: None
Source of Release: Internal corrosion	Date and Hour of Occurrence: 6/9/2015 @ 3:20 p.m.	Date and Hour of Discovery: 6/9/2015 @ 4:00 p.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Cory Smith - NMOCD; Hobson Sandoval - JAEPO	
By Whom? Thomas Long	Date and Hour 6/10/2014 @ 7:48 a.m.	
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: On July 9, 2015, during routine operations a field operation technician identified a natural gas release on the Apache Hills #2 well tie. The pipeline was isolated, depressurized, locked out and tagged out. Repairs were complete on July 21, 2105.

Describe Area Affected and Cleanup Action Taken.* A third party environmental contractor conducted an investigation during the repair activities. The investigation indicated that the natural gas release caused no subsurface impacts. Soil excavated during repair activities was used as backfill. A third party investigation report is included with this "Final." C-141.

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>Jon Fields</i>	OIL CONSERVATION DIVISION	
Printed Name: Jon E. Fields	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Director, Field Environmental	Approval Date: <u>10/21/15</u>	Expiration Date:
E-mail Address: jefields@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>9-21-2015</u> Phone: (713)381-6684		

* Attach Additional Sheets If Necessary

#NCS 1518952955

(39)

**Apache Hills #2
Pipeline Release Report
N36.23344, W107.18544
Sec. 8, T23N, R3W
Rio Arriba County, New Mexico
August 12, 2015**

OIL CONS. DIV DIST. 3

SEP 25 2015

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401

**Enterprise Field Services, LLC
Apache Hills #2
Pipeline Release Report**

Prepared for:

Enterprise Field Services, LLC
614 Reilly Avenue
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC
501 Airport Drive, Suite 205
Farmington, New Mexico 87401



Sean Norris, Area Manager

Reviewed by:



Heather M. Woods, P.G., Area Manager

August 19, 2015

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2 Release Summary 1
3 NMOCD Site Ranking 1
4 Field Activities 2
5 Soil Sampling 2
6 Conclusions 3
7 Closure and Limitations 3

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- Table 2 Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH

Figures

- Figure 1 Topographic Map
- Figure 2 Aerial Site Map
- Figure 3 Soil Analytical Map

Appendices

- Appendix A Photograph Log
- Appendix B Analytical Laboratory Reports

Apache Hills #2 Pipeline Release Report

1 Introduction

The Enterprise Field Services, LLC (Enterprise) Apache Hills #2 pipeline release site is located in Rio Arriba County, New Mexico, north of Jicarilla Road 20. The release of natural gas and condensate was discovered on June 9, 2015, and resulted from a corrosion hole on the 4-inch well tie pipeline for the Apache Hills #2 well site. Site work commenced on July 20, 2015, which included the replacement of approximately 210 feet of the well tie pipeline.

A topographic map of the location is included as Figure 1 and an aerial site map is included as Figure 2.

2 Release Summary

Site Name –Apache Hills #2 Pipeline Release

Location – Unit Letter M (SW/SW), Section 8, Township 23N, Range 3W

Release Latitude/Longitude – N36.23344 and W107.18544, respectively

Land Jurisdiction – Jicarilla Apache Nation

Date Release Discovered – June 9, 2015

Agency Notification – New Mexico Oil Conservation Division (NMOCD),
Jicarilla Apache Nation Environmental Protection Agency (JANEPO)

Diameter of pipeline – 4-inch

Source of Release – corrosion hole on the 4-inch pipeline

Release Contents – natural gas

Release Volume – unknown

NMOCD Site Ranking – 10

Date of Rule Engineering, LLC (Rule) Field Work – July 21, 2015

Subcontractor(s) – West States Energy Contractors, Inc. (West States)

Disposal Facility – Backfilled in place

3 NMOCD Site Ranking

In accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 10 (Table 1). Based on the ranking score of 10, action levels for remediated soils at the site are as follows: 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

Depth to groundwater at the site was estimated to be greater than 100 feet below grade surface (bgs) based on the elevation differential (271 feet) between the release location and the nearest wash (approximately 2 miles to the south).

Apache Hills #2 Pipeline Release Report

A review of the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System identified no water wells within a 1,000 foot radius of the location.

4 Field Activities

On July 20, 2015, Enterprise, West States, and Rule personnel were onsite for the initiation of pipeline repair activities. West States provided heavy equipment operation and Rule personnel provided excavation guidance. On July 21, 2015, based on visual observations and field screening results, Rule personnel collected eight confirmation samples (SC-1 through SC-8) from the sidewalls and base of the excavation. Additionally, one composite sample (Stockpile) was collected from the stockpiled soils to determine reuse as backfill material. Repair of the line consisted of the replacement of approximately 210 feet of the well tie pipeline from the meter at the well pad to the connection with the lateral line. The final repair excavation measured approximately 55 feet by 4 feet by 4 to 5 feet in depth. Figure 3 provides the locations and results of the soil samples collected.

A photograph log is included in Appendix A.

5 Soil Sampling

Rule collected confirmation soil samples from the sidewalls and base of the excavation. Soil samples SC-1 through SC-8 were collected on July 21, 2015. Each confirmation soil sample is a representative composite of material collected from separate locations within the sample area. Additionally, Rule collected a composite sample from the stockpiled soils (Stockpile) on July 21, 2015.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B and TPH for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015D. Laboratory analytical results are summarized in Table 2, and the analytical laboratory report is included in Appendix B.

A portion of each composite soil sample was also field screened for volatile organic compounds (VOCs). Field screening for VOC vapors was conducted with a photo-ionization detector (PID). Before beginning field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field screening results are summarized in Table 2.

6 Conclusions

The release of natural gas and condensate was discovered on June 9, 2015, and resulted from a corrosion hole on the 4-inch well tie pipeline for the Apache Hills #2 well site. Eight confirmation soil samples were collected from the sidewalls and base of the repair excavation and one composite sample was collected from the stockpiled soils on July 21, 2015, for laboratory analysis of BTEX and TPH. The final excavation measured approximately 55 feet by 4 feet by 4 to 5 feet in depth.

Laboratory analytical results for soil confirmation samples (SC-1 through SC-8 and Stockpile) reported benzene and total BTEX concentrations below the NMOCD action levels of 10 mg/kg and 50 mg/kg, respectively. The soil confirmation samples also reported TPH (GRO/DRO) concentrations below the NMOCD action level of 1,000 mg/kg. Action levels are based on a NMOCD site ranking of 10.

Based on laboratory analytical results, no further work is recommended.

7 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions and limitations stated in Rule's proposal, the report, and Rule's Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

Tables

**Table 1. NMOCD Site Ranking Determination
 Apache Hills #2 Pipeline Release San
 Juan County, New Mexico Enterprise
 Products Operating, LLC**

Ranking Criteria	Ranking Score	Site-Based Ranking Score	Basis for Determination	Data Sources
Depth to Groundwater				
<50 feet	20	0	Elevation differential between location and wash in Chacon Canyon, south of the location, is 271 feet.	NMOCD Online database, Five Lakes Canyon NW Quadrangle, Google Earth, and Visual Inspection
50-99 feet	10			
>100 feet	0			
Wellhead Protection Area				
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes)	0	No water source or recorded water wells within 1,000 feet radius of location.	NMOSE NMWRRS, Five Lakes Canyon NW Quadrangle, Google Earth, and Visual Inspection
	0 (No)			
Distance to Surface Water Body				
<200 horizontal feet	20	10	Unnamed wash located approximately 714 feet east of location, drains to the wash in Chacon Canyon.	Five Lakes Canyon NW Quadrangle, Google Earth, and Visual Inspection
200 to 1,000 horizontal feet	10			
>1,000 horizontal feet	0			
Site Based Total Ranking Score		10		

Table 2. Soil Sampling Results-VOCs, Benzene, Total BTEX, and TPH
Apache Hills #2 Pipeline Release
Rio Arriba County, New Mexico
Enterprise Products Operating, LLC

Sample ID	Date	Location	Sample Depth (ft bgs)	VOCs (PID) (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO	TPH-DRO
							(mg/kg)	
NMOCD Action Levels*				100	10	50	1,000	
SC-1	7/21/15	South Wall	0 to 5	8.4	<0.049	<0.245	<4.9	<10
SC-2	7/21/15	S. East Wall	0 to 5	59.4	<0.048	<0.240	18	19
SC-3	7/21/15	South Base	5	2,087	0.25	15	290	46
SC-4	7/21/15	S. West Wall	0 to 5	474	0.11	2.2	56	79
SC-5	7/21/15	N. West Wall	0 to 5	123.2	<0.048	0.14	11	18
SC-6	7/21/15	N. East Wall	0 to 5	17.9	<0.048	<0.240	<4.8	11
SC-7	7/21/15	North Base	5	3.4	<0.049	<0.245	<4.9	<9.7
SC-8	7/21/15	North Wall	0 to 5	53.8	<0.048	<0.239	<4.8	79
Stockpile	7/21/15	Stockpile	--	--	0.13	3.4	25	43

Notes: VOCs - volatile organic compounds
 PID - photo-ionization detector
 ft bgs - feet below grade surface
 ppm - parts per million
 mg/kg - milligrams/kilograms

BTEX - benzene, toluene, ethylbenzene, and xylenes
 TPH-GRO - total petroleum hydrocarbons-gasoline range organics
 TPH-DRO - total petroleum hydrocarbons-diesel range organics
 *NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (1993)

Figures



Legend

★ Apache Hills #2 Release Location

Apache Hills #2 Pipeline Release
N36.23344, W107.18544

Copyright: © 2013 National Geographic Society, I-cubed

Rule Engineering, LLC
Solutions to Regulations for Industry

0 1,000 2,000 3,000 4,000 Feet



Location
N36.23344, W107.18544
Rio Arriba County, New Mexico

Topographic Map
Enterprise Products
Apache Hills #2
Pipeline Release

Date: 8/4/2015 File: 150804 Apache Hills 2 Topo

Figure: 1



Legend

----- Road

★ Release Location

Apache Hills #2 Pipeline Release
N36.23344, W107.18544

Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Rule Engineering, LLC
Solutions to Regulations for Industry



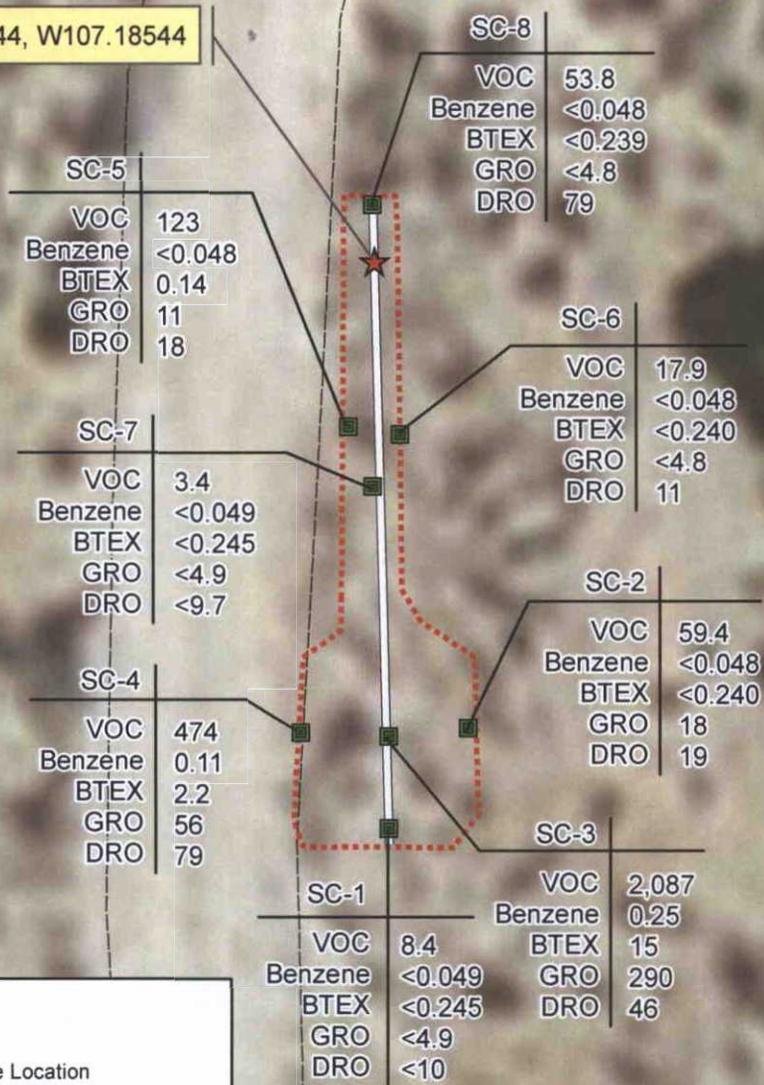
Location
N36.23344, W107.18544
Rio Arriba County, New Mexico

Aerial Site Map
Enterprise Products
Apache Hills #2
Pipeline Release

Date: 8/4/2015 File: 150804 Apache Hills 2 Aerial Site Map

Figure: 2

N36.23344, W107.18544



Legend

- ★ Apache Hills #2 Release Location
- Soil Sample Location
- Extent of Excavation
- Road
- == Pipeline

Notes:

VOC= Volatile Organic Compounds
 BTEX= Benzene, Toluene, Ethylbenzene, and Xylenes
 GRO= Gasoline Range Organics
 DRO= Diesel Range Organics

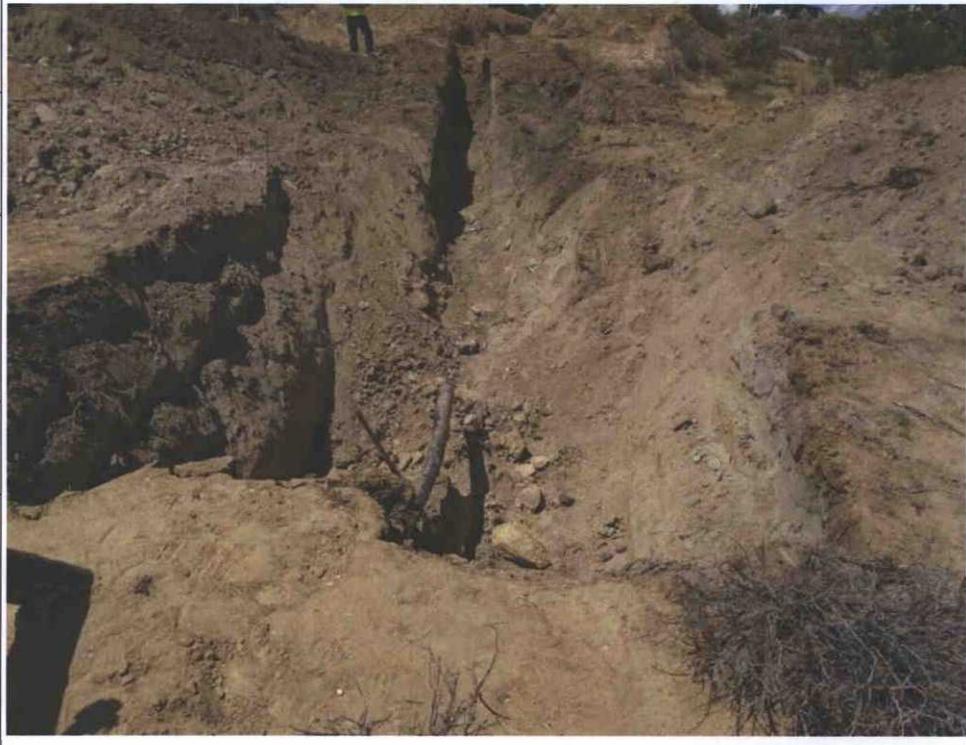
Samples SC-1 through SC-8 are 5 pt. composite samples.
 All samples collected July 21, 2015.
 VOC results in ppm.
 All other results in mg/kg.

Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Appendix A
Photograph Log

Photograph Log
Apache Hills #2 Pipeline Release
Enterprise Field Services

Photograph #1	
Client: Enterprise	
Site Name: Apache Hills #2 Pipeline Release	
Date Photo Taken: July 21, 2015	
Location: N36.23344, W107.18544 Sec. 8, T23N, R3W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: View of final pipeline repair excavation, looking south.

Photograph #2	
Client: Enterprise Products	
Site Name: Apache Hills #2 Pipeline Release	
Date Photo Taken: July 21, 2015	
Location: N36.23344, W107.18544 Sec. 8, T23N, R3W Rio Arriba County, New Mexico	
Photo Taken by: Deborah Watson	Description: View of final pipeline repair excavation, looking north.

Appendix B
Analytical Laboratory Reports



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

July 27, 2015

Deborah Watson
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 860-2712
FAX

RE: Apache Hills #2 Pipeline Release

OrderNo.: 1507970

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/22/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:25:00 PM

Lab ID: 1507970-001

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/23/2015 2:35:16 PM	20387
Surr: BFB	103	70-130		%REC	1	7/23/2015 2:35:16 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/24/2015 9:31:40 PM	20379
Surr: DNOP	132	57.9-140		%REC	1	7/24/2015 9:31:40 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.049		mg/Kg	1	7/23/2015 2:35:16 PM	20387
Toluene	ND	0.049		mg/Kg	1	7/23/2015 2:35:16 PM	20387
Ethylbenzene	ND	0.049		mg/Kg	1	7/23/2015 2:35:16 PM	20387
Xylenes, Total	ND	0.098		mg/Kg	1	7/23/2015 2:35:16 PM	20387
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	7/23/2015 2:35:16 PM	20387
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	7/23/2015 2:35:16 PM	20387
Surr: Dibromofluoromethane	110	70-130		%REC	1	7/23/2015 2:35:16 PM	20387
Surr: Toluene-d8	95.7	70-130		%REC	1	7/23/2015 2:35:16 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-2

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:36:00 PM

Lab ID: 1507970-002

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	18	4.8		mg/Kg	1	7/23/2015 3:58:14 PM	20387
Surr: BFB	115	70-130		%REC	1	7/23/2015 3:58:14 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	19	9.8		mg/Kg	1	7/24/2015 9:58:59 PM	20379
Surr: DNOP	111	57.9-140		%REC	1	7/24/2015 9:58:59 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	7/23/2015 3:58:14 PM	20387
Toluene	ND	0.048		mg/Kg	1	7/23/2015 3:58:14 PM	20387
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2015 3:58:14 PM	20387
Xylenes, Total	ND	0.096		mg/Kg	1	7/23/2015 3:58:14 PM	20387
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	7/23/2015 3:58:14 PM	20387
Surr: 4-Bromofluorobenzene	88.8	70-130		%REC	1	7/23/2015 3:58:14 PM	20387
Surr: Dibromofluoromethane	117	70-130		%REC	1	7/23/2015 3:58:14 PM	20387
Surr: Toluene-d8	98.0	70-130		%REC	1	7/23/2015 3:58:14 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:42:00 PM

Lab ID: 1507970-003

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	290	25		mg/Kg	5	7/23/2015 4:25:56 PM	20387
Surr: BFB	111	70-130		%REC	5	7/23/2015 4:25:56 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	46	9.7		mg/Kg	1	7/24/2015 10:26:14 PM	20379
Surr: DNOP	116	57.9-140		%REC	1	7/24/2015 10:26:14 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	0.25	0.25		mg/Kg	5	7/23/2015 4:25:56 PM	20387
Toluene	2.7	0.25		mg/Kg	5	7/23/2015 4:25:56 PM	20387
Ethylbenzene	1.4	0.25		mg/Kg	5	7/23/2015 4:25:56 PM	20387
Xylenes, Total	11	0.49		mg/Kg	5	7/23/2015 4:25:56 PM	20387
Surr: 1,2-Dichloroethane-d4	109	70-130		%REC	5	7/23/2015 4:25:56 PM	20387
Surr: 4-Bromofluorobenzene	87.8	70-130		%REC	5	7/23/2015 4:25:56 PM	20387
Surr: Dibromofluoromethane	107	70-130		%REC	5	7/23/2015 4:25:56 PM	20387
Surr: Toluene-d8	97.9	70-130		%REC	5	7/23/2015 4:25:56 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:30:00 PM

Lab ID: 1507970-004

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	56	4.9		mg/Kg	1	7/23/2015 4:53:38 PM	20387
Surr: BFB	116	70-130		%REC	1	7/23/2015 4:53:38 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	79	10		mg/Kg	1	7/24/2015 10:53:34 PM	20379
Surr: DNOP	122	57.9-140		%REC	1	7/24/2015 10:53:34 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	0.11	0.049		mg/Kg	1	7/23/2015 4:53:38 PM	20387
Toluene	0.51	0.049		mg/Kg	1	7/23/2015 4:53:38 PM	20387
Ethylbenzene	0.18	0.049		mg/Kg	1	7/23/2015 4:53:38 PM	20387
Xylenes, Total	1.4	0.098		mg/Kg	1	7/23/2015 4:53:38 PM	20387
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	7/23/2015 4:53:38 PM	20387
Surr: 4-Bromofluorobenzene	82.2	70-130		%REC	1	7/23/2015 4:53:38 PM	20387
Surr: Dibromofluoromethane	110	70-130		%REC	1	7/23/2015 4:53:38 PM	20387
Surr: Toluene-d8	97.8	70-130		%REC	1	7/23/2015 4:53:38 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-5

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:44:00 PM

Lab ID: 1507970-005

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	11	4.8		mg/Kg	1	7/23/2015 5:21:16 PM	20387
Surr: BFB	109	70-130		%REC	1	7/23/2015 5:21:16 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	18	9.8		mg/Kg	1	7/24/2015 11:20:53 PM	20379
Surr: DNOP	121	57.9-140		%REC	1	7/24/2015 11:20:53 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	7/23/2015 5:21:16 PM	20387
Toluene	ND	0.048		mg/Kg	1	7/23/2015 5:21:16 PM	20387
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2015 5:21:16 PM	20387
Xylenes, Total	0.14	0.097		mg/Kg	1	7/23/2015 5:21:16 PM	20387
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	1	7/23/2015 5:21:16 PM	20387
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	1	7/23/2015 5:21:16 PM	20387
Surr: Dibromofluoromethane	117	70-130		%REC	1	7/23/2015 5:21:16 PM	20387
Surr: Toluene-d8	98.0	70-130		%REC	1	7/23/2015 5:21:16 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:46:00 PM

Lab ID: 1507970-006

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/23/2015 5:48:53 PM	20387
Surr: BFB	108	70-130		%REC	1	7/23/2015 5:48:53 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	11	10		mg/Kg	1	7/24/2015 11:48:11 PM	20379
Surr: DNOP	121	57.9-140		%REC	1	7/24/2015 11:48:11 PM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	7/23/2015 5:48:53 PM	20387
Toluene	ND	0.048		mg/Kg	1	7/23/2015 5:48:53 PM	20387
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2015 5:48:53 PM	20387
Xylenes, Total	ND	0.096		mg/Kg	1	7/23/2015 5:48:53 PM	20387
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	7/23/2015 5:48:53 PM	20387
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	7/23/2015 5:48:53 PM	20387
Surr: Dibromofluoromethane	113	70-130		%REC	1	7/23/2015 5:48:53 PM	20387
Surr: Toluene-d8	95.6	70-130		%REC	1	7/23/2015 5:48:53 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:50:00 PM

Lab ID: 1507970-007

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	7/23/2015 6:16:28 PM	20387
Surr: BFB	104	70-130		%REC	1	7/23/2015 6:16:28 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/25/2015 12:15:30 AM	20379
Surr: DNOP	120	57.9-140		%REC	1	7/25/2015 12:15:30 AM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.049		mg/Kg	1	7/23/2015 6:16:28 PM	20387
Toluene	ND	0.049		mg/Kg	1	7/23/2015 6:16:28 PM	20387
Ethylbenzene	ND	0.049		mg/Kg	1	7/23/2015 6:16:28 PM	20387
Xylenes, Total	ND	0.098		mg/Kg	1	7/23/2015 6:16:28 PM	20387
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/23/2015 6:16:28 PM	20387
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	1	7/23/2015 6:16:28 PM	20387
Surr: Dibromofluoromethane	113	70-130		%REC	1	7/23/2015 6:16:28 PM	20387
Surr: Toluene-d8	96.4	70-130		%REC	1	7/23/2015 6:16:28 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC

Client Sample ID: SC-8

Project: Apache Hills #2 Pipeline Release

Collection Date: 7/21/2015 1:55:00 PM

Lab ID: 1507970-008

Matrix: SOIL

Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D MOD: GASOLINE RANGE							Analyst: DJF
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	7/23/2015 6:44:04 PM	20387
Surr: BFB	102	70-130		%REC	1	7/23/2015 6:44:04 PM	20387
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	79	9.9		mg/Kg	1	7/25/2015 12:42:45 AM	20379
Surr: DNOP	114	57.9-140		%REC	1	7/25/2015 12:42:45 AM	20379
EPA METHOD 8260B: VOLATILES SHORT LIST							Analyst: DJF
Benzene	ND	0.048		mg/Kg	1	7/23/2015 6:44:04 PM	20387
Toluene	ND	0.048		mg/Kg	1	7/23/2015 6:44:04 PM	20387
Ethylbenzene	ND	0.048		mg/Kg	1	7/23/2015 6:44:04 PM	20387
Xylenes, Total	ND	0.095		mg/Kg	1	7/23/2015 6:44:04 PM	20387
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/23/2015 6:44:04 PM	20387
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	1	7/23/2015 6:44:04 PM	20387
Surr: Dibromofluoromethane	111	70-130		%REC	1	7/23/2015 6:44:04 PM	20387
Surr: Toluene-d8	94.8	70-130		%REC	1	7/23/2015 6:44:04 PM	20387

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

WO#: 1507970

Hall Environmental Analysis Laboratory, Inc.

27-Jul-15

Client: Rule Engineering LLC

Project: Apache Hills #2 Pipeline Release

Sample ID MB-20379	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 20379	RunNo: 27723								
Prep Date: 7/22/2015	Analysis Date: 7/24/2015	SeqNo: 834383			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		105	57.9	140			

Sample ID LCS-20379	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 20379	RunNo: 27723								
Prep Date: 7/22/2015	Analysis Date: 7/24/2015	SeqNo: 834384			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.1	57.4	139			
Surr: DNOP	5.5		5.000		111	57.9	140			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

WO#: 1507970

Hall Environmental Analysis Laboratory, Inc.

27-Jul-15

Client: Rule Engineering LLC

Project: Apache Hills #2 Pipeline Release

Sample ID	mb-20387		SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	PBS		Batch ID:	20387		RunNo:	27718				
Prep Date:	7/22/2015		Analysis Date:	7/23/2015		SeqNo:	833184		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	0.050									
Toluene	ND	0.050									
Ethylbenzene	ND	0.050									
Xylenes, Total	ND	0.10									
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130				
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.5	70	130				
Surr: Dibromofluoromethane	0.58		0.5000		115	70	130				
Surr: Toluene-d8	0.47		0.5000		94.5	70	130				

Sample ID	ics-20387		SampType:	LCS		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	LCSS		Batch ID:	20387		RunNo:	27718				
Prep Date:	7/22/2015		Analysis Date:	7/23/2015		SeqNo:	833185		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	130				
Toluene	1.0	0.050	1.000	0	103	70	130				
Ethylbenzene	1.1	0.050	1.000	0	106	70	130				
Xylenes, Total	3.2	0.10	3.000	0	108	70	130				
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		104	70	130				
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.7	70	130				
Surr: Dibromofluoromethane	0.58		0.5000		116	70	130				
Surr: Toluene-d8	0.49		0.5000		97.8	70	130				

Sample ID	1507970-002ams		SampType:	MS		TestCode:	EPA Method 8260B: Volatiles Short List				
Client ID:	SC-2		Batch ID:	20387		RunNo:	27718				
Prep Date:	7/22/2015		Analysis Date:	7/23/2015		SeqNo:	833188		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	1.1	0.050	0.9921	0	115	70	130				
Toluene	1.2	0.050	0.9921	0.01751	119	70	130				
Ethylbenzene	1.3	0.050	0.9921	0	129	70	130				
Xylenes, Total	3.8	0.099	2.976	0.04769	127	70	130				
Surr: 1,2-Dichloroethane-d4	0.50		0.4960		102	70	130				
Surr: 4-Bromofluorobenzene	0.47		0.4960		95.4	70	130				
Surr: Dibromofluoromethane	0.55		0.4960		112	70	130				
Surr: Toluene-d8	0.49		0.4960		98.2	70	130				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507970

27-Jul-15

Client: Rule Engineering LLC
Project: Apache Hills #2 Pipeline Release

Sample ID 1507970-002amsd SampType: MSD TestCode: EPA Method 8260B: Volatiles Short List
Client ID: SC-2 Batch ID: 20387 RunNo: 27753
Prep Date: 7/22/2015 Analysis Date: 7/24/2015 SeqNo: 834542 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.2	0.048	0.9681	0	123	70	130	4.76	20	
Toluene	1.2	0.048	0.9681	0.01751	125	70	130	2.62	20	
Ethylbenzene	1.3	0.048	0.9681	0	135	70	130	1.80	0	S
Xylenes, Total	3.9	0.097	2.904	0.04769	132	70	130	1.50	0	S
Surr: 1,2-Dichloroethane-d4	0.50		0.4840		103	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.47		0.4840		96.5	70	130	0	0	
Surr: Dibromofluoromethane	0.54		0.4840		112	70	130	0	0	
Surr: Toluene-d8	0.48		0.4840		98.2	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: 1507970

Hall Environmental Analysis Laboratory, Inc.

27-Jul-15

Client: Rule Engineering LLC
Project: Apache Hills #2 Pipeline Release

Sample ID	mb-20387	SampType:	MBLK	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	PBS	Batch ID:	20387	RunNo:	27718					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833250	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	540		500.0		108	70	130			

Sample ID	lcs-20387	SampType:	LCS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	LCSS	Batch ID:	20387	RunNo:	27718					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833278	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	70	123			
Surr: BFB	520		500.0		104	70	130			

Sample ID	1507970-001ams	SampType:	MS	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	SC-1	Batch ID:	20387	RunNo:	27718					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833291	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	30	5.0	25.00	0	121	54.9	131			
Surr: BFB	540		500.0		108	70	130			

Sample ID	1507970-001amsd	SampType:	MSD	TestCode:	EPA Method 8015D Mod: Gasoline Range					
Client ID:	SC-1	Batch ID:	20387	RunNo:	27718					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833293	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	0	124	54.9	131	0.382	20	
Surr: BFB	500		488.8		102	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL** Work Order Number: **1507970** RcptNo: **1**

Received by/date: *[Signature]* **07/22/15**
 Logged By: **Lindsay Mangin** 7/22/2015 7:00:00 AM *[Signature]*
 Completed By: **Lindsay Mangin** 7/22/2015 9:07:53 AM *[Signature]*
 Reviewed By: **CS** **07/22/15**

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
(<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

Chain-of-Custody Record

Client: Rule Engineering LLC

Mailing Address: 501 Airport Drive
uite 205 Farmington NM 87401

Phone #: 505 860 2712

Email or Fax#: dwatson@ruleengineering.com

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation
 NELAP Other _____

EDD (Type) _____

Turn-Around Time:
 Standard Rush

Project Name:
Apache Hills #2 Pipeline Release

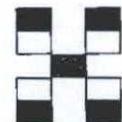
Project #:

Project Manager:
D Watson

Sampler: D Watson

On Ice: Yes No

Sample Temperature: 1.9



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + TPH (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO/DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	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)
7/21/15	1325	soil	SC-1	2-4oz	cold	1507970-001	X	X	X									
	1336		SC-2			-002	X	X	X									
	1342		SC-3			-003	X	X	X									
	1330		SC-4			-004	X	X	X									
	1344		SC-5			-005	X	X	X									
	1346		SC-6			-006	X	X	X									
	1350		SC-7			-007	X	X	X									
	1355		SC-8			-008	X	X	X									

Date: 7/21/15 Time: 1821 Relinquished by: Debrah Watson

Date: 7/21/15 Time: 1821 Received by: Christa Waack

Date: 7/22/15 Time: 0700 Relinquished by: Christa Waack

Date: 7/22/15 Time: 0700 Received by: [Signature]

Remarks: Bill to Enterprise

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.



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

July 27, 2015

Deborah Watson
Rule Engineering LLC
501 Airport Dr., Ste 205
Farmington, NM 87401
TEL: (505) 860-2712
FAX

RE: Apache Hills #2 Pipeline

OrderNo.: 1507969

Dear Deborah Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 7/22/2015 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC
Project: Apache Hills #2 Pipeline
Lab ID: 1507969-001

Matrix: SOIL

Client Sample ID: Stockpile
Collection Date: 7/21/2015 2:15:00 PM
Received Date: 7/22/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: JME
Diesel Range Organics (DRO)	43	9.8		mg/Kg	1	7/24/2015 8:09:28 PM	20379
Surr: DNOP	123	57.9-140		%REC	1	7/24/2015 8:09:28 PM	20379
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	25	5.0		mg/Kg	1	7/23/2015 11:27:59 PM	20385
Surr: BFB	166	75.4-113	S	%REC	1	7/23/2015 11:27:59 PM	20385
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.13	0.050		mg/Kg	1	7/23/2015 11:27:59 PM	20385
Toluene	0.82	0.050		mg/Kg	1	7/23/2015 11:27:59 PM	20385
Ethylbenzene	0.29	0.050		mg/Kg	1	7/23/2015 11:27:59 PM	20385
Xylenes, Total	2.2	0.10		mg/Kg	1	7/23/2015 11:27:59 PM	20385
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	7/23/2015 11:27:59 PM	20385

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	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	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

QC SUMMARY REPORT

WO#: 1507969

Hall Environmental Analysis Laboratory, Inc.

27-Jul-15

Client: Rule Engineering LLC
Project: Apache Hills #2 Pipeline

Sample ID	1507969-001AMS	SampType:	MS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Stockpile	Batch ID:	20379	RunNo:	27723					
Prep Date:	7/22/2015	Analysis Date:	7/24/2015	SeqNo:	834355	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	98	10	50.61	43.10	109	42.3	146			
Surr: DNOP	6.4		5.061		127	57.9	140			

Sample ID	1507969-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	Stockpile	Batch ID:	20379	RunNo:	27723					
Prep Date:	7/22/2015	Analysis Date:	7/24/2015	SeqNo:	834356	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	99	10	51.39	43.10	108	42.3	146	0.342	28.9	
Surr: DNOP	6.5		5.139		127	57.9	140	0	0	

Sample ID	MB-20379	SampType:	MBLK	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	20379	RunNo:	27723					
Prep Date:	7/22/2015	Analysis Date:	7/24/2015	SeqNo:	834383	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		105	57.9	140			

Sample ID	LCS-20379	SampType:	LCS	TestCode:	EPA Method 8015M/D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	20379	RunNo:	27723					
Prep Date:	7/22/2015	Analysis Date:	7/24/2015	SeqNo:	834384	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.1	57.4	139			
Surr: DNOP	5.5		5.000		111	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507969

27-Jul-15

Client: Rule Engineering LLC
Project: Apache Hills #2 Pipeline

Sample ID	MB-20385	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	20385	RunNo:	27716					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833100	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	870		1000		86.8	75.4	113			

Sample ID	LCS-20385	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	20385	RunNo:	27716					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833101	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.3	79.6	122			
Surr: BFB	910		1000		91.4	75.4	113			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | 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 | P Sample pH Not In Range |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1507969

27-Jul-15

Client: Rule Engineering LLC
 Project: Apache Hills #2 Pipeline

Sample ID	MB-20385	SampType:	MBLK	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	PBS	Batch ID:	20385	RunNo:	27716					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833126	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		91.9	80	120			

Sample ID	LCS-20385	SampType:	LCS	TestCode:	EPA Method 8021B: Volatiles					
Client ID:	LCSS	Batch ID:	20385	RunNo:	27716					
Prep Date:	7/22/2015	Analysis Date:	7/23/2015	SeqNo:	833127	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	101	76.6	128			
Toluene	1.0	0.050	1.000	0	99.9	75	124			
Ethylbenzene	1.1	0.050	1.000	0	107	79.5	126			
Xylenes, Total	3.3	0.10	3.000	0	110	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: **RULE ENGINEERING LL**

Work Order Number: **1507969**

RcptNo: **1**

Received by/date:

[Signature] **07/22/15**

Logged By: **Lindsay Mangin**

7/22/2015 7:00:00 AM

[Signature]

Completed By: **Lindsay Mangin**

7/22/2015 9:04:03 AM

[Signature]

Reviewed By:

CS 07/22/15

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	Good	Yes			

